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=> s methanoic acid or ethanoic acid or propanoic acid or hydroxyethanoic acid or 2-hydroxypropionic acid or oxoethanoic acid or 2-oxopropionic acid or 4-oxovaleric acid or benzoic acid or hydroxybenzoic acid or tri-hydroxybenzoic acid

1 FILES SEARCHED...

3 FILES SEARCHED...

4 FILES SEARCHED...

L1 124053 METHANOIC ACID OR ETHANOIC ACID OR PROPANOIC ACID OR HYDROXYETHA

NOIC ACID OR 2-HYDROXYPROPIONIC ACID OR OXOETHANOIC ACID OR 2-OXOPROPIONIC ACID OR 4-OXOVALERIC ACID OR BENZOIC ACID OR HYDROXYBENZOIC ACID OR TRI-HYDROXYBENZOIC ACID

=>

=> s alkyl sulfonate or alkylarylsulfonate

L2 9844 ALKYL SULFONATE OR ALKYLARYLSULFONATE

=> s cumene sulfonate or toluene sulfonate

L3 5534 CUMENE SULFONATE OR TOLUENE SULFONATE

=> s ethylene glycol or propylene glycol or butylene glycol or diethylene glycol or dihydroxydiethyl ether or triethylene glycol

L4 319055 ETHYLENE GLYCOL OR PROPYLENE GLYCOL OR BUTYLENE GLYCOL OR DIETHY

LENE GLYCOL OR DIHYDROXYDIETHYL ETHER OR TRIETHYLENE GLYCOL

=> s l1 and l2 and l3 and l4

L5 59 L1 AND L2 AND L3 AND L4

=> s l5 and py<1998

2 FILES SEARCHED...

3 FILES SEARCHED...

L6 36 L5 AND PY<1998

=> d l6 1-5 kwic bib

L6 ANSWER 1 OF 36 USPATFULL

PI US 5945394 19990831

WO 9711143 19970327

<--

SUMM The preferred alkyl ester sulfonate or fatty acid alpha sulfonate surfactants comprise **alkyl sulfonate** surfactants of the structural formula: ##STR1## wherein R.sub.3 is a C.sub.8 -C.sub.20 hydrocarbyl, preferably an alkyl, or combination thereof, R.sub.4.

SUMM . . . this reaction is a secondary sulfonic acid which is then neutralized with a suitable base to provide a water-soluble secondary **alkyl sulfonate**. Similar secondary **alkyl sulfonates** may be obtained by other methods, i.e. by the sulfochlorination method in which chlorine and sulfur dioxide are reacted with paraffins in the presence of actinic light, the resulting sulfonyl chlorides being hydrolyzed and neutralized to form the secondary **alkyl sulfonates**. Whatever technique is employed, it is normally desirable to produce the sulfonate as the monosulfonate, having no unreacted starting hydrocarbon. . .

SUMM 3. The condensation products of ethylene oxide with a hydrophobic base

formed by the condensation of propylene oxide with **propylene glycol**. The hydrophobic portion of these compounds preferably has a molecular weight of from about 1500 to about 1800 and exhibits.

SUMM Traditional hydrotropes such as sodium and potassium **toluene sulfonate**, sodium and potassium xylene sulfonate, sodium and potassium **cumene sulfonate**, trisodium and tripotassium sulfosuccinate, and related compounds (as disclosed in U.S. Pat. No. 3,915,903, the disclosure of which is incorporated. . . . acid derivatives which may be useful in the present invention include, but are not necessarily limited to, fumaric acid derivatives; **benzoic acid** derivatives; p-phenylenebis-acrylic acid derivatives; naphthalenedicarboxylic acid derivatives; heterocyclic acid derivatives; and cinnamic acid derivatives.

SUMM . . . such as those containing from 2 to about 6 carbon atoms and from 2 to about 6 hydroxy groups (e.g., **propylene glycol**, **ethylene glycol**, glycerine, and 1,2-propanediol) can also be used.

AN 1999:102783 USPATFULL

TI Heavy duty liquid detergent compositions comprising salts of .alpha.-sulfonated fatty acid methyl esters and use of .alpha.-sulphonated fatty acid salts to inhibit redeposition of soil on fabric

IN Sajic, Branko, Lincolnwood, IL, United States  
Ryklin, Irma, Buffalo Grove, IL, United States  
Malik, Arshad, Mundelein, IL, United States

PA Stepan Company, Northfield, IL, United States (U.S. corporation)

PI US 5945394 19990831  
WO 9711143 19970327 <--

AI US 1997-836821 19970731 (8)  
WO 1996-US14889 19960917  
19970731 PCT 371 date  
19970731 PCT 102(e) date

RLI Continuation of Ser. No. US 1995-529501, filed on 18 Sep 1995, now abandoned

DT Utility

EXNAM Primary Examiner: Ogden, Necholus

LREP McDonnell Boehnen Hulbert & Berghoff

CLMN Number of Claims: 8

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1580

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 2 OF 36 USPATFULL

PI US 5698512 19971216 <--

SUMM . . . Neodol tradename. Exemplary anionic surfactants which may be employed in the stable aqueous compositions of the invention include alkylaryl sulfonates, **alkyl sulfonates**, alkyl sulfates, alkyl ether sulfates, phosphate esters and phosphonates.

SUMM . . . compositions containing polyelectrolytes and high levels of nonionic surfactants include ethanol; lower alkylbenzenesulfonic acid salts, such as benzene sulfonate and p-**toluene sulfonate**; glycols, such as **propylene glycol**; or solubilizers such as acetylbenzene sulfonate, acetoamides, pyridine dicarboxylic acid amides, **benzoic acid** and urea. Such solubilizers conventionally are used at levels ranging from 1 weight percent to 10 weight percent of the. . . .

DETD A murexide indicator solution, 0.15 g murexide/100 ml **ethylene glycol** was prepared.

AN 97:118004 USPATFULL

TI Water soluble polymers containing allyloxybenzenesulfonic acid monomer

IN Austin, Anne-Marie B., Signal Mountain, TN, United States  
 Carrier, Allen M., Hixson, TN, United States  
 Standish, Michael L., Rossville, GA, United States  
 PA National Starch and Chemical Investment Holding Corporation,  
 Wilmington,  
 DE, United States (U.S. corporation)  
 PI US 5698512 19971216 <--  
 AI US 1996-665752 19960618 (8)  
 RLI Continuation-in-part of Ser. No. US 1995-390731, filed on 17 Feb 1995,  
 now patented, Pat. No. US 5547612  
 DT Utility  
 EXNAM Primary Examiner: Lieberman, Paul; Assistant Examiner: Ogden, Nicholas  
 LREP Wissing, William K.  
 CLMN Number of Claims: 7  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1279  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 3 OF 36 USPATFULL

PI US 5686147 19971111 <--

SUMM . . . typically a multi-functional acrylate, a multi-functional  
 methacrylate or divinylbenzene. Some specific examples of crosslinking  
 agents which can be used include **ethylene glycol**  
 methacrylate, trimethylol propane trimethacrylate (TRIM),  
 divinylbenzene

(DVB) and 1,4-butanediol dimethacrylate.

SUMM . . . practice of this invention. Sulfonate surfactants are  
 commercially available from a wide variety of sources. For instance,  
 DuPont sells sodium **alkylarylsulfonate** under the tradename  
 Alkanol.TM., Browning Chemical Corporation sells sodium dodecylbenzene  
 sulfonates under the tradename Ufaryl.TM. D1-85 and Ruetgers-Nease  
 Chemical Company sells sodium **cumene sulfonate** under  
 the tradename Naxonate Hydrotrope.TM.. Some representative examples of  
 sulfonate surfactants which can be used include sodium toluene-xylene  
 sulfonate, sodium **toluene sulfonate**, sodium  
**cumene sulfonates**, sodium decyldiphenylether  
 sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether  
 sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate,  
 sodium pentadecane sulfonate, sodium heptadecane sulfonate and  
 potassium

**toluene sulfonate.**

SUMM . . . weight adipate, polypropylene adipate, modified polypropylene  
 adipate; azelaic acid derivatives, such as dicyclohexyl azelate,  
 di-(2-ethylhexyl) azelate, di-n-hexyl azelate, diisooctyl azelate;  
**benzoic acid** derivatives such as **diethylene**  
**glycol** dibenzoate, dipropylene glycol dibenzoate,  
**diethylene glycol** benzoate and dipropylene glycol  
 benzoate blend, neopentyl glycol dibenzoate, glyceryl tribenzoate,  
 trimethylolthane tribenzoate, pentaerythritol tribenzoate, cumylphenyl  
 benzoate; polyphenyl derivatives such. . . fumarate, diisooctyl  
 fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed  
 dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such  
 as **diethylene glycol** dipelargonate,  
**triethylene glycol** dipelargonate, **triethylene**  
**glycol** di-(2-ethylbutyrate), **triethylene**  
**glycol** di-caprylate-caprate, **triethylene**  
**glycol** di-(2-ethylhexoate), **triethylene glycol**  
 dicaprylate, tetraethylene glycol dicaprylate, polyethylene glycol  
 di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of  
 vegetable oil fatty acid, **triethylene glycol** ester  
 of fatty acid; linear dibasic acid derivatives such as mixed dibasic  
 ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric.  
 . . . such as 2,2,4-trimethyl-1,3-pentanediol diisobutyrate;

isophthalic

acid derivatives such as di(2-ethylhexyl) isophthalate, diisooctyl

isophthalate, dioctylisophthalate; lauric acid derivatives such as butyllaurate, 1,2-**propylene glycol** monolaurate, **ethylene glycol** monoethyl ether laurate, **ethylene glycol** monobutyl ether laurate, glycerol monolaurate, polyethylene glycol-400-dilaurate; mellitic acid derivatives such as n-octyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl. . . trimellitate, tri(C.sub.7-9 alkyl) trimellitate, tri-2-ethylhexyl trimellitate; nitrile derivatives such as fatty acid nitrile; oleic acid derivatives such as butyl oleate, 1,2-**propylene glycol** mono oleate, **ethylene glycol** monobutyl ether oleate, tetrahydrofurfuryl oleate, glyceryl monoleate; paraffin derivatives such as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl) phosphate, tributoxyethyl phosphate, triphenyl. . .

CLM What is claimed is:

. . . coating to a substrate as specified in claim 5 wherein the crosslinking agent is selected from the group consisting of **ethylene glycol** methacrylate, trimethylol propane trimethacrylate, divinylbenzene and 1,4-butanediol dimethacrylate.

. . . coating to a substrate as specified in claim 16 wherein the crosslinking agent is selected from the group consisting of **ethylene glycol** methacrylate, trimethylol propane trimethacrylate, divinylbenzene and 1,4-butanediol dimethacrylate.

AN 97:104179 USPATFULL|  
 TI Plastisol composition|  
 IN Ngoc, Hung Dang, Limeil Brevannes, France  
 PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S. corporation)  
 PI US 5686147 19971111 <--  
 AI US 1996-746949 19961118 (8)  
 DT Utility|  
 EXNAM Primary Examiner: Szekely, Peter A.|  
 LREP Rockhill, Alvin T.|  
 CLMN Number of Claims: 20|  
 ECL Exemplary Claim: 1|  
 DRWN No Drawings  
 LN.CNT 870|  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 4 OF 36 USPATFULL  
 PI US 5674933 19971007 <--  
 SUMM . . . typically a multi-functional acrylate, a multi-functional methacrylate or divinylbenzene. Some specific examples of crosslinking agents which can be used include **ethylene glycol** methacrylate, divinylbenzene, and 1,4-butanediol dimethacrylate.

SUMM . . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**, and from about 0.1 phm to about 5 phm of at least one dispersant selected from the group consisting of. . . for the reaction mixture to contain from about 0.25 phm to about 4.25 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate, and from about 0.4 phm to about 3.5 phm of the dispersant. . .

SUMM . . . in this invention as surfactants are commercially available

from a wide variety of sources. For instance, Du Pont sells sodium **alkylarylsulfonate** under the tradename Alkanol.TM., Browning Chemical Corporation sells sodium dodecylbenzene sulfonates under the tradename Ufaryl.TM. D1-85, and Ruetgers-Nease Chemical Company sells sodium **cumene sulfonate** under the tradename Naxonate Hydrotrope.TM.. Some representative examples of sulfonate surfactants which can be used include sodium toluene-xylene sulfonate, sodium **toluene sulfonate**, sodium **cumene sulfonates**, sodium decyldiphenylether sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.

SUMM . . . disulfonate structure is that it contains two ionic charges per molecule instead of one as is the case with conventional **alkyl sulfonate** surfactants. Mixtures of (mono)dialkylate ether disulfates which are useful in the practice of this invention are commercially available from a . . .

SUMM . . . adipate, modified polypropylene adipate; azelaic acid derivatives, such as dicyclohexyl azelate, di-(2-ethylhexyl) azelate, di-n-hexyl azelate, low temperature plasticizer, diisooctyl azelate; **benzoic acid** derivatives such as **diethylene glycol** dibenzoate, dipropylene glycol dibenzoate, **diethylene glycol** benzoate and dipropylene glycol benzoate blend, proprietary low stain neopentyl glycol dibenzoate, glyceryl tribenzoate, timethylolethane tribenzoate, pentaerythritol tribenzoate, cumylphenyl benzoate; . . . fumarate, diisooctyl fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such as **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, **triethylene glycol** di-(2-ethylbutyrate), **triethylene glycol** di-caprylate, **triethylene glycol** di-(2-ethylhexoate), **triethylene glycol** dicaprylate, tetraethylene glycol dicaprylate, polyethylene glycol di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of vegetable oil fatty acid, **triethylene glycol** ester of fatty acid; linear dibasic acid derivatives such as mixed dibasic ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric. . . such as 2,2,4-trimethyl-1,3-pentanediol diisobutyrate;

isophthalic acid derivatives such as di(2-ethylhexyl) isophthalate, diisooctyl isophthalate, dioctylisophthalate; lauric acid derivatives such as butyllaurate, 1,2-**propylene glycol** monolaurate, **ethylene glycol** monoethyl ether laurate, **ethylene glycol** monobutyl ether laurate, glycerol monolaurate, polyethylene glycol-400-dilaurate; mellitates such as n-octyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl trimellitate, tricapryl. . . trimellitate, tri(C.sub.7-9 alkyl) trimellitate, tri-2-ethylhexyl trimellitate; nitrile derivatives such as fatty acid nitrile; oleic acid derivatives such as butyl oleate, 1,2-**propylene glycol** mono oleate, **ethylene glycol** monobutyl ether oleate, tetrahydrofurfuryl oleate, glyceryl monooleate; paraffin derivatives such as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl) phosphate, tributoxyethyl phosphate, triphenyl. . .

AN 97:91588 USPATFULL

TI Low fogging rubbery polymer

IN Ngoc, Hung Dang, Limeil Brevannes, France

PA Salazar, Mariano, Orsay, France  
The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S. corporation)  
PI US 5674933 19971007 <--  
AI US 1995-573983 19951218 (8)  
RLI Continuation-in-part of Ser. No. US 1995-440032, filed on 12 May 1995, now patented, Pat. No. US 5504160 which is a division of Ser. No. US 1994-306291, filed on 15 Sep 1994, now patented, Pat. No. US 5415940 which is a division of Ser. No. US 1993-43076, filed on 5 Apr 1993, now patented, Pat. No. US 5380785  
DT Utility  
EXNAM Primary Examiner: Nagumo, Mark  
LREP Rockhill, Alvin T.  
CLMN Number of Claims: 14  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1074  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 5 OF 36 USPATFULL

PI US 5629376 19970513 <--

SUMM . . . and salts formed with organic acids such as acetic acid, oxalic

acid, tartaric acid, succinic acid, malic acid, ascorbic acid, **benzoic acid**, tannic acid, pamoic acid, alginic acid, polyglutamic acid, or aromatic sulfonic acids; or (c) combinations of (a) and (b).

SUMM . . . cations are sodium, potassium, and ammonium. Examples of aromatic sulfonic acid salts include sodium xylene sulfonate, ammonium xylene sulfonate, sodium **toluene sulfonate**, sodium **cumene sulfonate**, ammonium **cumene sulfonate**, potassium **toluene sulfonate**, potassium **cumene sulfonate**, and potassium xylene sulfonate.

SUMM . . . polypropylene glycols, polyoxyethylenated polyoxypropylene glycol, polyoxyethylenated mercaptans, long chain carboxylic acid esters, glycerol and polyglycerol esters of natural fatty acids, **propylene glycol**, sorbitol, and polyoxyethylenated sorbitol esters, polyoxyethylene glycol esters and polyoxyethylenated fatty acids, alkanolamine condensates, alkanolamides, alkanolamine

fatty acid condensates, tertiary. . .

SUMM 1. **Ethylene Glycol** Esters and Polyethylene Glycols

SUMM **Ethylene glycol** esters, **ethylene glycols** and polyethylene glycols can be used in the preparation of acrylic acid resins to be used as surfactants, emulsifiers, and. .

SUMM **Ethylene glycol** can be in the form of a mono or diester, for example, **ethylene glycol** monomethyl ether, **ethylene glycol** dimethyl ether, **ethylene glycol** monoethyl ether, **ethylene glycol** diethyl ether, **ethylene glycol** (mono or di)-isopropyl ether, **ethylene glycol** (mono or di)-n-propyl ether, **ethylene glycol** (mono or di)-n-butyl ether, **ethylene glycol** (mono or di)-sec-butyl ether, and **ethylene glycol** (mono or di)-isobutyl ether. Also appropriate are the mono- and di- alkyl ethers of **diethylene glycol**.

SUMM Component 5. aromatic sulfonic acid, for example aryl sulfonate, alkaryl

sulfonate, or alkyl diphenyloxide sulfonate, **alkyl sulfonate**, alkylethoxy sulfate, or sodium lauryl ether sulfate;

SUMM . . . Percent Composition

Component by weight

---

acrylic acid 15-22

free radical initiating agent  
3-5  
water remaining percentage  
aromatic sulfonic acid or its salts  
10-40  
textile processing chemical  
0-40

ethylene glycol ester  
ethylene glycol  
polyethylene glycol  
ethoxylated phenol  
ethoxylated alcohol  
phosphoric acid/ester  
UV absorbing agents  
fluorinated alkyl ethyl alcohol and  
unsaturated esters, fluorinated alkyl ethyl  
amine and unsaturated amides  
fluorochemicals

SUMM . . . acid or salt solutions. Preferred viscosity adjusting reagents include water, and the sodium, potassium, and ammonium salts of xylene sulfonate, **cumene sulfonate**, **toluene sulfonate**, and dodecyl diphenyl disulfonate. The resulting polymeric solution is acidic. If desired, the pH of the solution can be adjusted with. . .

DETD

Methacrylic acid	15.0%
Sodium <b>cumene sulfonate</b>	30.0%
Ammonium persulfate	5.0%
Nonyl phenol ethoxylated (9 mole)	20.0%
Water	30.0%

DETD . . . product had an active solids content of approximately 51%. It was diluted to a 45% active solids content with sodium **cumene sulfonate** and water.

DETD

Acrylic acid	18%
Xylene sulfonic acid	5%
Ammonium Persulfate	4%
Sodium <b>cumene sulfonate</b>	23%
Water	30%
Nonylphenol (9 mole ethoxylate)	20%
	100%

DETD

Water	30%
Sodium <b>cumene sulfonate</b> (45%)	30%
Nonyl phenol (9 M)	20%
Methacrylate acid	15%
Ammonium Persulfate	5%
	100%

DETD

Sodium <b>cumene sulfonate</b> (40%)	60%
Isopropyl alcohol	7%
Dodecyl diphenyloxide disulfonate	10%
Methacrylate acid	15%
Xylene sulfonic acid	4%
Ammonium persulfate	4%
	100%



---

DETD  
Acrylic acid monomer 15%  
Xylene sulfonic acid 5%  
Sodium xylene sulfonate  
15%  
**Ethylene glycol** 2%  
Benzene sulfonic acid  
10%  
Sodium phosphate 5%  
Water 48%  
100%

---

AN 97:40853 USPATFULL  
TI Polyacrylic acid compositions for textile processing  
IN Sargent, R. Richard, Rome, GA, United States  
Williams, Michael S., Rome, GA, United States  
Moss, III, Thomas H., Rome, GA, United States  
Alender, Jeffrey R., Marietta, GA, United States  
PA Peach State Labs, Inc., Rome, GA, United States (U.S. corporation)  
PI US 5629376 19970513 <--  
AI US 1993-63211 19930517 (8)  
RLI Continuation-in-part of Ser. No. US 1990-606467, filed on 31 Oct 1990,  
now patented, Pat. No. US 5212272  
DT Utility  
EXNAM Primary Examiner: Schofer, Joseph L.; Assistant Examiner: Cheng, Wu C.  
LREP Kilpatrick & Cody  
CLMN Number of Claims: 23  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1461  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d 6-36 kwic bib

L6 ANSWER 6 OF 36 USPATFULL  
PI US 5616651 19970401 <--  
SUMM . . . typically a multi-functional acrylate, a multi-functional  
methacrylate or divinylbenzene. Some specific examples of crosslinking  
agents which can be used include **ethylene glycol**  
methacrylate, divinylbenzene, and 1,4-butanediol dimethacrylate.  
SUMM . . . monomers, a suitable free radical initiator, a crosslinking  
agent, a half ester maleate soap, and a metal salt of an **alkyl**  
**sulfonate** or a metal salt of an alkyl sulfate. The reaction  
mixture utilized in this polymerization technique will normally contain  
from. . .  
SUMM . . . of at least one member selected from the group consisting of  
metal salts of alkyl sulfates and metal salts of **alkyl**  
**sulfonates**. It is generally preferred for the reaction mixture  
to contain from about 0.008 phm to about 0.5 phm of the metal salt of  
the **alkyl sulfonate** or the metal salt of the alkyl  
sulfate. It is normally more preferred for the reaction mixture to  
contain from about 0.05 phm to about 0.3 phm of the metal salt of the  
**alkyl sulfonate** or the metal salt of the alkyl  
sulfate.  
SUMM . . . are useful in this invention are commercially available from a  
wide variety of sources. For instance, Du Pont sells sodium  
**alkylarylsulfonate** under the tradename Alkanol.TM., Browning  
Chemical Corporation sells sodium dodecylbenzene sulfonates under the  
tradename Ufaryl.TM. D1-85, and Ruetgers-Nease Chemical Company sells  
sodium **cumene sulfonate** under the tradename Naxionate  
Hydrotrope.TM.. Some representative examples of sulfonate surfactants  
which can be used include sodium toluene-xylene sulfonate, sodium  
**toluene sulfonate**, sodium **cumene**

**sulfonates**, sodium decyldiphenylether sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.

SUMM . . . adipate, modified polypropylene adipate; azelaic acid derivatives, such as dicyclohexyl azelate, di-(2-ethylhexyl) azelate, di-n-hexyl azelate, low temperature plasticizer, diisooctyl azelate; **benzoic acid** derivatives such as **diethylene glycol** dibenzoate, dipropylene glycol dibenzoate, **diethylene glycol** benzoate and dipropylene glycol benzoate blend, proprietary low stain, neopentyl glycol dibenzoate, glyceryl tribenzoate, timethylolethane tribenzoate, pentaerylthritol tribenzoate, cumylphenyl benzoate; . . . fumarate, diisooctyl fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such as **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, **triethylene glycol** di-(2-ethylbutyrate), **triethylene glycol** di-caprylatecaprate, **triethylene glycol** di-(2-ethylhexoate), **triethylene glycol** dicaprylate, tetraethylene glycol dicaprylate, polyethylene glycol di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of vegetable oil fatty acid, **triethylene glycol** ester of fatty acid; linear dibasic acid derivatives such as mixed dibasic ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric. . . such as 2,2,4-trimethyl-1,3-pentanediol diisobutyrate;

isophthalic acid derivatives such as di(2-ethylhexyl) isophthalate, diisooctyl isophthalate, dioctylisophthalate; lauric acid derivatives such as butyllaurate, 1,2-**propylene glycol** monolaurate, **ethylene glycol** monoethyl ether laurate, **ethylene glycol** monobutyl ether laurate, glycerol monolaurate, polyethylene glycol-400-dilaurate; mellitates such as n-octyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl trimellitate, tricapryl. . . trimellitate, tri(C.sub.7-9 alkyl) trimellitate, tri-2-ethylhexyl trimellitate; nitrile derivatives such as fatty acid nitrile; oleic acid derivatives such as butyl oleate, 1,2-**propylene glycol** mono oleate, **ethylene glycol** monobutyl ether oleate, tetrahydrofurfuryl oleate, glyceryl monoleate; paraffin derivatives such as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl) phosphate, tributoxyethyl phosphate, triphenyl. . .

CLM What is claimed is:

. . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**; and wherein said polymerization is carried out at a temperature which is within the range of about 60.degree. F. to. . .

. . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**; and wherein 2-ethylhexyl acrylate is further polymerized in an amount up to 40 weight percent of the total amount of.

AN 97:27237 USPATFULL|

TI Rubbery polymer|

IN Ni no, Mariano S., Orsay, France

Ngoc, Hung D., Limeil Brevannes, France

PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S.)

corporation)  
PI US 5616651 19970401 <--  
AI US 1995-546031 19951020 (8)  
RLI Continuation-in-part of Ser. No. US 1995-440032, filed on 12 May 1995, now patented, Pat. No. US 5504160 which is a division of Ser. No. US 1994-306291, filed on 15 Sep 1994, now patented, Pat. No. US 5415940 which is a division of Ser. No. US 1993-43076, filed on 5 Apr 1993, now patented, Pat. No. US 5380785  
DT Utility|  
EXNAM Primary Examiner: Zemel, Irina S.|  
LREP Rockhill, Alvin T.|  
CLMN Number of Claims: 20|  
ECL Exemplary Claim: 1|  
DRWN No Drawings  
LN.CNT 902|  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 7 OF 36 USPATFULL

PI US 5565022 19961015 <--  
DETD . . . into very small droplets and maintaining these droplets in a stable dispersion--a microemulsion. Surfactant examples of common non-hydrotropic amphiphiles include **alkyl sulfonates**, benzene sulfonates, alkyl substituted benzene sulfonates, naphthalene sulfonates, alkyl amine oxides, substituted ammonium salts and the non-ionics.  
DETD . . . of the invention include, but are not limited to, sodium benzoate, sodium salicylate, sodium benzene sulfonate, sodium benzene disulfonate, sodium **toluene sulfonate**, sodium xylene sulfonate, sodium **cumene sulfonate**, sodium cymene sulfonate, and sodium cinnamate. Examples of cationic hydrotropic amphiphiles suitably employed in the practice of the invention include, but are not limited to, para amino **benzoic acid** hydrochloride, procaine hydrochloride, and caffeine. Examples of non-ionic hydrotropic amphiphiles suitably employed in the practice of the invention include, but. . .  
DETD . . . ternary phase diagram. For example, the sole FIGURE depicts such a ternary phase diagram for an ink-jet ink composition comprising **propylene glycol** phenyl ether, sodium xylene sulfonate, and water, as described in greater detail in the examples below, wherein Area A represents. . .  
DETD An ink-jet ink composition was prepared consisting of 3 wt % Isol Yellow dye, 25 wt % **propylene glycol** phenyl ether, 15 wt % sodium xylene sulfonate, and the remainder water, with the concentrations of the vehicle components having. . . phase diagram depicted in the sole FIGURE. More specifically, the phase diagram depicted in the FIGURE was constructed by combining **propylene glycol** phenyl ether and water in various proportions and then titrating each mixture against sodium xylene sulfonate until a clear, single-phase region was determined. Thus, Area A of the FIGURE represents the various combinations of **propylene glycol** phenyl ether, sodium xylene sulfonate, and water that yielded a two-phase region evidenced by a milky appearance. Area B of the FIGURE represents the various combinations of **propylene glycol** phenyl ether, sodium xylene sulfonate, and water that yielded a clear, single-phase region. Area C of the FIGURE was defined by further titrating the mixtures of **propylene glycol** phenyl ether and water with sodium xylene sulfonate beyond the clear point until a semi-solid phase region was defined. The single-phase isotropic region Area B of the FIGURE indicates compositions of **propylene glycol** phenyl ether, sodium xylene sulfonate, and water that may be suitably employed in the practice of the invention. The compositions. . .  
DETD . . . isotropic region of Area B in the FIGURE. More specifically, the vehicle of this ink composition contained 26 wt % **propylene glycol** phenyl ether, 15 wt % sodium xylene sulfonate, and 59 wt

% water, with the concentrations slightly changed to represent. . .  
DETD An ink-jet ink composition was prepared consisting of 3 wt % Isol  
Yellow

dye, 25 wt % **ethylene glycol** phenyl ether, 11 wt %  
sodium xylene sulfonate, and the remainder water, it having been  
determined through an exercise similar. . .

CLM What is claimed is:

. . the group consisting of monoethylene glycol phenyl ethers,  
polyethylene glycol phenyl ethers, monopropylene glycol phenyl ethers,  
polypropylene glycol phenyl ethers, **ethylene glycol**  
esters, **propylene glycol** esters, polyethylene glycol  
esters, and polypropylene glycol esters.

. . . hydrotropic amphiphile is selected from the group consisting of  
sodium benzoate, sodium salicylate, sodium benzene sulfonate, sodium  
benzene disulfonate, sodium **toluene sulfonate**,  
sodium xylene sulfonate, sodium **cumene sulfonate**,  
sodium cymene sulfonate, sodium cinnamate, para amino **benzoic**  
**acid** hydrochloride, procaine hydrochloride, caffeine, resorcinol  
and pyrogallol.

. . . ink composition of claim 1 wherein said at least one water-insoluble  
organic compound is selected from the group consisting of  
**propylene glycol** phenyl ether and **ethylene**  
**glycol** phenyl ether and said at least one amphiphile is sodium  
xylene sulfonate.

. . . (b) about 1 to 70 wt % of at least one water-insoluble organic  
compound selected from the group consisting of **propylene**  
**glycol** phenyl ether and **ethylene glycol**  
phenyl ether; (c) sodium xylene sulfonate; and (d) water, wherein said  
sodium xylene sulfonate is present in an amount sufficient. . .

. . the group consisting of monoethylene glycol phenyl ethers,  
polyethylene glycol phenyl ethers, monopropylene glycol phenyl ethers,  
polypropylene glycol phenyl ethers, **ethylene glycol**  
esters, **propylene glycol** esters, polyethylene glycol  
esters, and polypropylene glycol esters.

. . . hydrotropic amphiphile is selected from the group consisting of  
sodium benzoate, sodium salicylate, sodium benzene sulfonate, sodium  
benzene disulfonate, sodium **toluene sulfonate**,  
sodium xylene sulfonate, sodium **cumene sulfonate**,  
sodium cymene sulfonate, sodium cinnamate, para amino **benzoic**  
**acid** hydrochloride, procaine hydrochloride, caffeine, resorcinol  
and pyrogallol.

. . . The process of claim 11 wherein said at least one water-insoluble  
organic compound is selected from the group consisting of  
**propylene glycol** phenyl ether and **ethylene**  
**glycol** phenyl ether and said at least one amphiphile is sodium  
xylene sulfonate.

. . . (b) about 1 to 70 wt % of at least one water-insoluble organic  
compound selected from the group consisting of **propylene**  
**glycol** phenyl ether and **ethylene glycol**  
phenyl ether; (c) sodium xylene sulfonate; and (d) water, wherein said  
sodium xylene sulfonate is present in an amount sufficient. . .

AN 96:94156 USPTAFULL|

TI Fast drying, bleed-free ink-jet ink compositions|

IN Wickramanayake, Palitha, Corvallis, OR, United States

PA Hewlett-Packard Company, Palo Alto, CA, United States (U.S.  
corporation)

PI US 5565022 19961015

<--

AI US 1995-528072 19950914 (8)

DT Utility|

EXNAM Primary Examiner: Klemanski, Helene|

CLMN Number of Claims: 20|  
ECL Exemplary Claim: 1|  
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)|  
LN.CNT 496|  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 8 OF 36 USPATFULL

PI US 5552468 19960903

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SUMM . . . typically a multi-functional acrylate, a multi-functional methacrylate or divinylbenzene. Some specific examples of crosslinking agents which can be used include **ethylene glycol** methacrylate, trimethylol propane trimethacrylate (TRIM),

divinylbenzene

(DVB), and 1,4-butanediol dimethacrylate.

SUMM . . . of this invention. Sulfonate surfactants are commercially available from a wide variety of sources. For instance, Du Pont sells sodium **alkylarylsulfonate** under the tradename Alkanol.TM., Browning Chemical Corporation sells sodium dodecylbenzene sulfonates under the tradename Ufaryl.TM. D1-85, and Ruetgers-Nease Chemical Company sells sodium **cumene sulfonate** under the tradename Naxonate Hydrotrope.TM.. Some representative examples of sulfonate surfactants which can be used include sodium toluene-xylene sulfonate, sodium **toluene sulfonate**, sodium

**cumene sulfonates**, sodium decyldiphenylether

sulfonate, sodium dodecylbenzenesulfonate, sodium decyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.

SUMM . . . weight adipate, polypropylene adipate, modified polypropylene adipate; azelaic acid derivatives, such as dicyclohexyl azelate, di-(2-ethylhexyl) azelate, di-n-hexyl azelate, diisooctyl azelate;

**benzoic acid** derivatives such as **diethylene**

**glycol** dibenzoate, dipropylene glycol dibenzoate,

**diethylene glycol** benzoate and dipropylene glycol

benzoate blend, neopentyl glycol dibenzoate, glyceryl tribenzoate, trimethylolthane tribenzoate, pentaerythritol tribenzoate, cumylphenyl benzoate; polyphenyl derivatives such as . . . fumarate, diisooctyl fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such as **diethylene glycol** dipelargonate,

**triethylene glycol** dipelargonate, **triethylene**

**glycol** di-(2-ethylbutyrate), **triethylene**

**glycol** di-caprylatecaprate, **triethylene glycol**

di-(2-ethylhexoate), **triethylene glycol** dicaprylate,

tetraethylene glycol dicaprylate, polyethylene glycol

di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of vegetable oil fatty acid, **triethylene glycol** ester

of fatty acid; linear dibasic acid derivatives such as mixed dibasic

ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric.

. . . such as 2,2,4-trimethyl-1,3-pentanediol diisobutyrate;

isophthalic

acid derivatives such as di(2-ethylhexyl) isophthalate, diisooctyl

isophthalate, dioctylisophthalate; lauric acid derivatives such as

butyllaurate, 1,2-**propylene glycol** monolaurate,

**ethylene glycol** monoethyl ether laurate,

**ethylene glycol** monobutyl ether laurate, glycerol

monolaurate, polyethylene glycol-400-dilaurate; mellitic acid

derivatives such as n-octyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl. . .

trimellitate, tri(C.sub.7-9 alkyl) trimellitate, trio2-ethylhexyl

trimellitate; nitrile derivatives such as fatty acid nitrile; oleic

acid

derivatives such as butyl oleate, 1,2-**propylene glycol**

mono oleate, **ethylene glycol** monobutyl ether oleate,

tetrahydrofurfuryl oleate, glyceryl monooleate; paraffin derivatives

such

as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl) phosphate, tributoxyethyl phosphate, triphenyl. . .

CLM What is claimed is:

. . . crosslinked nitrile rubber composition as specified in claim 2 wherein the crosslinking agent is selected from the group consisting of **ethylene glycol** methacrylate, trimethylol propane trimethacrylate, divinylbenzene, and 1,4-butanediol dimethacrylate.

AN 96:80334 USPATFULL|

TI Rubbery blend having low permanent compression set|

IN Ngoc, Hung D., Limeil Brevannes, France

Duval, Guy P. R., Paris, France

PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S. corporation)

PI US 5552468 19960903 <--

AI US 1994-334991 19941107 (8)

RLI Continuation of Ser. No. US 1993-154053, filed on 18 Nov 1993, now patented, Pat. No. US 5362787

DT Utility|

EXNAM Primary Examiner: Michl, Paul R.; Assistant Examiner: Asinovsky, Olga|

LREP Rockhill, Alvin T.|

CLMN Number of Claims: 10|

ECL Exemplary Claim: 1|

DRWN No Drawings

LN.CNT 684|

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 9 OF 36 USPATFULL

PI US 5531816 19960702 <--

DETD . . . polyethylene, and polypropylene glycol esters such as acrylates. Additionally, specific examples of preferably-employed hydrocarbons include toluene, xylenes, naphthalene, and phenanthrene. **Ethylene glycol** phenyl ether and **propylene glycol** phenyl ether are most preferably employed in the practice of the invention. The water-insoluble organic component may range in concentration. . .

DETD . . . amine oxide (NTAO); N,N-dimethyl-N-hexadecyl amine oxide (NHAO); N,N-dimethyl-N-octadecyl amine oxide (NOAO); and N,N-dimethyl-N-(Z-9-octa-decenyl)-N-amine oxide (OOAO). Further examples

of amphiphiles include **alkyl sulfonates** and alkyl benzene sulfonates.

DETD . . . of the invention include, but are not limited to, sodium benzoate, sodium salicylate, sodium benzene sulfonate, sodium benzene disulfonate, sodium **toluene sulfonate**, sodium xylene sulfonate, sodium **cumene sulfonate**, sodium cymene sulfonate, and sodium cinnamate. Examples of cationic hydrotropic amphiphiles suitably employed in the practice of the invention include, but are not limited to, para amino **benzoic acid** hydrochloride, procaine hydrochloride, and caffeine. Examples of non-ionic hydrotropic amphiphiles suitably employed in the practice of the invention include, but. . .

DETD . . . ink compositions. Examples of suitably-employed co-surfactants include, but are not limited to, lactams such as 2-pyrrolidone; glycol esters such as **propylene glycol** laurate; mono- and di-glycol ethers, including **ethylene glycol** monobutyl ether, **diethylene glycol** ethers, **diethylene glycol** mono ethyl, butyl, hexyl ethers, **propylene glycol** ether, dipropylene glycol ether, and **triethylene glycol** ether; mid-chain alcohols such as butyl alcohol, pentyl alcohol, and monologous alcohols; and acetylenic polyethylene oxides. Preferably, if a co-surfactant. . .

DETD . . . a ternary phase diagram. For example, FIG. 1 depicts such a ternary phase diagram for an ink-jet ink composition comprising **propylene glycol** phenyl ether, sodium xylene sulfonate, and water, wherein Area A represents a milky region having two phases, Area B represents. . .

DETD Similar results are obtained in the following ternary systems: (1) water-sodium salicylate-**ethylene glycol** phenyl ether; (2) water-sodium salicylate-**propylene glycol** phenyl ether; (3) water-sodium benzoate-**ethylene glycol** phenyl ether; and (4) water-sodium benzoate-**propylene glycol** phenyl ether.

CLM What is claimed is:

- . . . the group consisting of monoethylene glycol phenyl ethers, polyethylene glycol phenyl ethers, monopropylene glycol phenyl ethers, polypropylene glycol phenyl ethers, **ethylene glycol** esters, **propylene glycol** esters, polyethylene glycol esters, polypropylene glycol esters, toluene, xylenes, naphthalene, and phenanthrene.
- . . . hydrotropic amphiphile is selected from the group consisting of sodium benzoate, sodium salicylate, sodium benzene sulfonate, sodium benzene disulfonate, sodium **toluene sulfonate**, sodium xylene sulfonate, sodium **cumene sulfonate**, sodium cymene sulfonate, sodium cinnamate, para amino **benzoic acid** hydrochloride, procaine hydrochloride, caffeine, resorcinol and pyrogallol.
- . . . ink composition of claim 1 wherein said at least one water-insoluble organic compound is selected from the group consisting of **propylene glycol** phenyl ether and **ethylene glycol** phenyl ether and said at least one amphiphile is selected from the group consisting of sodium xylene sulfonate, sodium salicylate,. . .
- . . . the group consisting of monoethylene glycol phenyl ethers, polyethylene glycol phenyl ethers, monopropylene glycol phenyl ethers, polypropylene glycol phenyl ethers, **ethylene glycol** esters, **propylene glycol** esters, polyethylene glycol esters, polypropylene glycol esters, toluene, xylenes, naphthalene, and phenanthrene.
- . . . hydrotropic amphiphile is selected from the group consisting of sodium benzoate, sodium salicylate, sodium benzene sulfonate, sodium benzene disulfonate, sodium **toluene sulfonate**, sodium xylene sulfonate, sodium **cumene sulfonate**, sodium cymene sulfonate, sodium cinnamate, para amino **benzoic acid** hydrochloride, procaine hydrochloride, caffeine, resorcinol and pyrogallol.
- . . . The method of claim 12 wherein said at least one water-insoluble organic compound is selected from the group consisting of **propylene glycol** phenyl ether and **ethylene glycol** phenyl ether and said at least one amphiphile is selected from the group consisting of sodium xylene sulfonate, sodium salicylate,. . .

AN 96:57797 USPATFULL|

TI Bleed-alleviated, waterfast, pigment-based ink-jet ink compositions|

IN Wickramanayake, Palitha, Corvallis, OR, United States

PA Hewlett-Packard Company, Palo Alto, CA, United States (U.S. corporation)

PI US 5531816 19960702 <--

AI US 1995-528077 19950914 (8)

DT Utility|

EXNAM Primary Examiner: Klemanski, Helene|

CLMN Number of Claims: 22|

ECL Exemplary Claim: 1|

DRWN 1 Drawing Figure(s); 1 Drawing Page(s)|

L6 ANSWER 10 OF 36 USPATFULL

PI US 5504160 19960402 <--

SUMM . . . typically a multi-functional acrylate, a multi-functional methacrylate or divinylbenzene. Some specific examples of crosslinking agents which can be used include **ethylene glycol** methacrylate, divinylbenzene, and 1,4-butanediol dimethacrylate.

SUMM . . . monomers, a suitable free radical initiator, a crosslinking agent, a half ester maleate soap, and a metal salt of an **alkyl sulfonate** or a metal salt of an alkyl sulfate. The reaction mixture utilized in this polymerization technique will normally contain from. . .

SUMM . . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**. It is generally preferred for the reaction mixture to contain from about 0.008 phm to about 0.5 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate. It is normally more preferred for the reaction mixture to contain from about 0.05 phm to about 0.3 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate.

SUMM . . . are useful in this invention are commercially available from a wide variety of sources. For instance, Du Pont sells sodium **alkylarylsulfonate** under the tradename Alkanol.TM., Browning Chemical Corporation sells sodium dodecylbenzene sulfonates under the tradename Ufaryl.TM. D1-85, and Ruetgers-Nease Chemical Company sells sodium **cumene sulfonate** under the tradename Naxonate Hydrotrope.TM.. Some representative examples of sulfonate surfactants which can be used include sodium toluene-xylene sulfonate, sodium **toluene sulfonate**, sodium **cumene sulfonates**, sodium decyldiphenylether sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.

SUMM . . . adipate, modified polypropylene adipate; azelaic acid derivatives, such as dicyclohexyl azelate, di-(2-ethylhexyl) azelate, di-n-hexyl azelate, low temperature plasticizer, diisooctyl azelate; **benzoic acid** derivatives such as **diethylene glycol** dibenzoate, dipropylene glycol dibenzoate, **diethylene glycol** benzoate and dipropylene glycol benzoate blend, proprietary low stain, neopentyl glycol dibenzoate, glyceryl tribenzoate, timethylolethane tribenzoate, pentaerylthritol tribenzoate, cumylphenyl benzoate; . . . fumarate, diisooctyl fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such as **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, **triethylene glycol** di-(2-ethylbutyrate), **triethylene glycol** di-caprylatecaprate, **triethylene glycol** di-(2-ethylhexoate), **triethylene glycol** dicaprylate, tetraethylene glycol dicaprylate, polyethylene glycol di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of vegetable oil fatty acid, **triethylene glycol** ester of fatty acid; linear dibasic acid derivatives such as mixed dibasic ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric. . . such as 2,2,4-trimethyl-1,3-pentanediol diisobutyrate;

isophthalic acid derivatives such as di(2-ethylhexyl) isophthalate, diisooctyl isophthalate, dioctylisophthalate; lauric acid derivatives such as butyllaurate, 1,2-**propylene glycol** monolaurate, **ethylene glycol** monoethyl ether laurate, **ethylene glycol** monobutyl ether laurate, glycerol monolaurate, polyethylene glycol-400-dilaurate; mellitates such as



n-octyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl trimellitate, tricapryl. . . trimellitate, tri(C.sub.7-9 alkyl) trimellitate, tri-2-ethylhexyl trimellitate; nitrile derivatives such as fatty acid nitrile; oleic acid derivatives such as butyl oleate, 1,2-**propylene glycol** mono oleate, **ethylene glycol** monobutyl ether oleate, tetrahydrofurfuryl oleate, glyceryl monoleate; paraffin derivatives such as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl) phosphate, tributoxyethyl phosphate, triphenyl. . .

CLM What is claimed is:

- . . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**.
- . . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**.
- . . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**.

AN 96:27270 USPATFULL|  
 TI Rubbery polymer|  
 IN Ngoc, Hung D., Limeil Brevannes, France  
 Salazar, Mariano, Orsay, France  
 PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S. corporation)  
 PI US 5504160 19960402 <--  
 AI US 1995-440032 19950512 (8)  
 RLI Division of Ser. No. US 1994-306291, filed on 15 Sep 1994, now patented,  
 Pat. No. US 5415940 which is a division of Ser. No. US 1993-43076,  
 filed on 5 Apr 1993, now patented, Pat. No. US 5380785  
 DT Utility|  
 EXNAM Primary Examiner: Nagumo, Mark|  
 LREP Rockhill, Alvin T.|  
 CLMN Number of Claims: 11|  
 ECL Exemplary Claim: 1|  
 DRWN No Drawings  
 LN.CNT 782|  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 11 OF 36 USPATFULL  
 PI US 5504155 19960402 <--  
 SUMM . . . typically a multi-functional acrylate, a multi-functional methacrylate or divinylbenzene. Some specific examples of crosslinking agents which can be used include **ethylene glycol** methacrylate, divinylbenzene, and 1,4-butanediol dimethacrylate.  
 SUMM . . . monomers, a suitable free radical initiator, a crosslinking agent, a half ester maleate soap, and a metal salt of an **alkyl sulfonate** or a metal salt of an alkyl sulfate. The reaction mixture utilized in this polymerization technique will normally contain from. . .  
 SUMM . . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**. It is generally preferred for the reaction mixture to contain from about 0.008 phm to about 0.5 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl

sulfate. It is normally more preferred for the reaction mixture to contain from about 0.05 phm to about 0.3 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate.

SUMM . . . are useful in this invention are commercially available from a wide variety of sources. For instance, Du Pont sells sodium **alkylarylsulfonate** under the tradename Alkanol.TM., Browning Chemical Corporation sells sodium dodecylbenzene sulfonates under the tradename Ufaryl.TM. D1-85, and Ruetgers-Nease Chemical Company sells sodium **cumene sulfonate** under the tradename Naxonate Hydrotrope.TM.. Some representative examples of sulfonate surfactants which can be used include sodium toluene-xylene sulfonate, sodium **toluene sulfonate**, sodium **cumene sulfonates**, sodium decyldiphenylether sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.

SUMM . . . adipate, modified polypropylene adipate; azelaic acid derivatives, such as dicyclohexyl azelate, di-(2-ethylhexyl) azelate, di-n-hexyl azelate, low temperature plasticizer, diisooctyl azelate; **benzoic acid** derivatives such as **diethylene glycol** dibenzoate, dipropylene glycol dibenzoate, **diethylene glycol** benzoate and dipropylene glycol benzoate blend, proprietary low stain, neopentyl glycol dibenzoate, glyceryl tribenzoate, timethylolethane tribenzoate, pentaerythritol tribenzoate, cumylphenyl benzoate; . . . fumarate, diisooctyl fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such as **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, **triethylene glycol** di-(2-ethylbutyrate), **triethylene glycol** di-caprylatecaprate, **triethylene glycol** di-(2-ethylhexoate), **triethylene glycol** dicaprylate, tetraethylene glycol dicaprylate, polyethylene glycol di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of vegetable oil fatty acid, **triethylene glycol** ester of fatty acid; linear dibasic acid derivatives such as mixed dibasic ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric. . . such as 2,2,4-trimethylol-1,3-pentanediol diisobutyrate; isophthalic acid derivatives such as di(2-ethylhexyl) isophthalate, diisooctyl isophthalate, dioctylisophthalate; lauric acid derivatives such as butyllaurate, 1,2-**propylene glycol** monolaurate, **ethylene glycol** monoethyl ether laurate, **ethylene glycol** monobutyl ether laurate, glycerol monolaurate, polyethylene glycol-400-dilaurate; mellitates such as noctyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl trimellitate, tricapryl. . . trimellitate, tri(C.sub.7-9 alkyl) trimellitate, tri-2-ethylhexyl trimellitate; nitrile derivatives such as fatty acid nitrile; oleic acid derivatives such as butyl oleate, 1,2-**propylene glycol** mono oleate, **ethylene glycol** monobutyl ether oleate, tetrahydrofurfuryl oleate, glyceryl monoleate; paraffin derivatives such as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl) phosphate, tributoxyethyl phosphate, triphenyl. . .

AN 96:27265 USPATFULL  
TI Rubbery polymer  
IN Ngoc, Hung D., Limeil Brevannes, France  
Salazar, Mariano, Orsay, France

PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S. corporation)  
PI US 5504155 19960402 <--  
AI US 1995-441136 19950515 (8)  
RLI Division of Ser. No. US 1994-306291, filed on 15 Sep 1994, now patented,  
Pat. No. US 5415940 which is a division of Ser. No. US 1993-43076, filed  
on 5 Apr 1993, now patented, Pat. No. US 5380785  
DT Utility  
EXNAM Primary Examiner: Nagumo, Mark  
LREP Rockhill, Alvin T.  
CLMN Number of Claims: 20  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 848  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 12 OF 36 USPATFULL

PI US 5500668 19960319 <--

SUMM . . . with 1 to 4 carbon atoms, X represents an anion such as a halogen ion, sulfate ion, alkyl sulfate ion, **alkyl sulfonate** ion, aryl sulfonate ion, and acetate ion, and Y represents oxygen or imino group.

SUMM . . . (1) hydrophilic poly(dialkylsiloxanes); (2) poly(alkylene glycol); (3) poly(propylene oxide)-poly(ethylene oxide) copolymers; (4) fatty ester modified compounds of phosphate, sorbitan, glycerol, poly(**ethylene glycol**), sulfosuccinic acid, sulfonic acid and alkyl amine; (5) poly(oxyalkylene) modified compounds of sorbitan esters, fatty amines, alkanol amides, castor oil, . . .

SUMM . . . sulfonate, 3-amino-1-propane sulfonate, cyclohexyl sulfamic acid salts, dioctyl sulfosuccinate, and the like, aromatic sulfonates, such as benzene sulfonate, 1,3-benzene disulfonate, **p-toluene sulfonate**, dodecyl benzene sulfonate, 4-octylbenzene sulfonate, xylene sulfonate, and the like, and substituted aromatic sulfonates, such as 4-sulfobenzoate, 2,5-dihydroxy-1,4-benzene disulfonate, p-toluene. . .

SUMM Specific examples of suitable organic salts include **benzoic acid** ammonium salt C.sub.6 H.sub.5 COONH.sub.4 (Aldrich 18,333-4); L-tartaric acid diammonium salt [--CH(OH)COONH.sub.4 ].sub.2 (Aldrich 22,892-3); ammonium citrate HOC(COOH)(CH.sub.2 COONH.sub.4).sub.2 (Aldrich. . . OSO.sub.3 Li (Aldrich 86,190-1); formic acid potassium salt HCOOK (Aldrich 29,445-4); acetic acid potassium salt CH.sub.3 COOK (Aldrich 23, 649-7); **benzoic acid** potassium salt C.sub.6 H.sub.5 COOK (Aldrich 29,000-9); oleic acid potassium salt CH.sub.3 (CH.sub.2).sub.7 CH.dbd.CH(CH.sub.2).sub.7 COOK (Aldrich 29,124-2); 2,4-hexadienoic acid potassium. . . hydrogen phthalate 2-(HOOC)C.sub.6 H.sub.4 COOK (Aldrich 17,992-2); citric acid, tripotassium salt monohydrate KOOC--CH.sub.2 --C(OH)(COOK)--CH.sub.2 --COOK. H.sub.2 O (Aldrich 36,017-1); 4-sulfo **benzoic acid** potassium salt KO.sub.3 S--C.sub.6 H.sub.4 COOH (Aldrich 31,063- 8); 4-nitrophenyl sulfate potassium salt O.sub.2 N--C.sub.6 H.sub.4 OSO.sub.3 K (Aldrich 85,649-5);. . . (CH.sub.2).sub.6 COONa (Aldrich 26,939-5); palmitic acid sodium salt CH.sub.3 (CH.sub.2).sub.14 COONa (Aldrich 28,690-7); formic acid sodium salt HCOONa (Aldrich 10,760-3); **benzoic acid** sodium salt C.sub.6 H.sub.5 COONa (Aldrich 10,916-9); 4-hydroxybutyric acid sodium salt HO(CH.sub.2).sub.3 COONa (Aldrich H2,222-1); 4-hydroxybenzyl formic acid sodium salt. . . salt HOCH.sub.2 C(CH.sub.3).sub.2 CH(OH)CONH(CH.sub.2).sub.2 COONa (Aldrich 28,316-9); hippuric acid sodium salt hydrate C.sub.6 H.sub.5 CONHCH.sub.2 COONa.xH.sub.2 O (Aldrich 27,164-0); 4-amino **benzoic acid** sodium salt H.sub.2 NC.sub.6 H.sub.4 COONa (Aldrich 85,291-0); 4-amino salicylic acid sodium salt dihydrate H.sub.2 NC.sub.6 H.sub.3 --2(OH)COONa.2H.sub.2 O (Aldrich. . .  
DETD Cyan: 20 percent by weight **ethylene glycol**, 2.5

percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Magenta: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Yellow: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Cyan: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Magenta: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Yellow: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Cyan: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Magenta: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Yellow: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Cyan: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Magenta: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Yellow: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Cyan: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Magenta: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

DETD Yellow: 20 percent by weight **ethylene glycol**, 2.5 percent by weight benzyl alcohol, 1.9 percent by weight ammonium chloride, 0.1 percent by weight Dowicil 150 biocide, obtained. . .

CLM What is claimed is:

. . . sulfonate, vinyl sulfonate, 2-methyl-2-propene-1-sulfonate, 2-chloroethane sulfonate, 3-chloro-2-hydroxy-1-propane sulfonate, 3-amino-1-propane sulfonate, cyclohexyl sulfamic acid salts, dioctyl sulfosuccinate, benzene sulfonate, 1,3-benzene disulfonate, p-**toluene sulfonate**, dodecyl benzene sulfonate, 4-octylbenzene sulfonate, xylene sulfonate, 4-sulfobenzoate, 2,5-dihydroxy-1,4-benzene disulfonate, p-toluene thiosulfonate, 4-acetyl benzene sulfonate, 4-hydroxybenzene sulfonate, 3-nitrobenzene sulfonate, diphenylamine-4-sulfonate, . . .

8. A printing process according to claim 1 wherein the monomeric salt is selected from the group consisting of **benzoic acid** ammonium salt; tartaric acid diammonium salt; ammonium citrate; ammonium hydrogen oxalate hemihydrate; ammonium oxalate monohydrate; ammonium carbamate; glycyrrhizic acid ammonium salt-trihydrate; . . . acid lithium salt; citric acid trilithium salt hydrate; dodecyl sulfate lithium salt; formic acid potassium salt; acetic acid potassium salt; **benzoic acid** potassium salt; oleic acid potassium

salt; 2,4-hexadienoic acid potassium salt; 2-ketoglutaric acid mono potassium salt; potassium oxalate monohydrate; tartaric acid dipotassium salt hydrate; gluconic acid potassium salt; potassium hydrogen phthalate; citric acid tripotassium salt monohydrate; 4-sulfo **benzoic acid** potassium salt; 4-nitrophenyl sulfate potassium salt; 3,5-dimethyl cyclohexyl sulfate potassium salt; 1,3-benzene disulfonic acid dipotassium salt; 2,5-dihydroxy-1,4-benzene disulfonic acid dipotassium. . . propionic acid sodium salt; butyric acid sodium salt; octanoic acid sodium salt; palmitic acid sodium salt; formic acid sodium salt; **benzoic acid** sodium salt; 4-hydroxybutyric acid sodium salt; 4-hydroxybenzyl formic acid sodium salt; 2-hydroxy valeric acid sodium salt hydrate; gluconic acid sodium. . . salt; 3-(trimethylsilyl) propionic acid sodium salt; linoleic acid sodium salt; pantothenic acid sodium salt; hippuric acid sodium salt hydrate; 4-amino **benzoic acid** sodium salt; 4-amino salicyclic acid sodium salt dihydrate; phenoxy acetic acid sodium salt hemihydrate; oleic acid sodium salt; succinic acid. . .

AN 96:23350 USPATFULL|

TI Recording sheets for printing processes using microwave drying|

IN Malhotra, Shadi L., Mississauga, Canada  
Gundlach, Kurt B., Pittsford, NY, United States  
Colt, Richard L., Rochester, NY, United States

PA Xerox Corporation, Stamford, CT, United States (U.S. corporation)

PI US 5500668 19960319 <--

AI US 1994-196669 19940215 (8)

DT Utility|

EXNAM Primary Examiner: Fuller, Benjamin R.; Assistant Examiner: Lund, Valerie  
Ann|

LREP Byorick, Judith L.|

CLMN Number of Claims: 20|

ECL Exemplary Claim: 19|

DRWN No Drawings

LN.CNT 2173|

L6 ANSWER 13 OF 36 USPATFULL

PI US 5462993 19951031 <--

SUMM . . . typically a multi-functional acrylate, a multi-functional methacrylate or divinylbenzene. Some specific examples of crosslinking agents which can be used include **ethylene glycol** methacrylate, divinylbenzene, and 1,4-butanediol dimethacrylate.

SUMM . . . monomers, a suitable free radical initiator, a crosslinking agent, a half ester maleate soap, and a metal salt of an **alkyl sulfonate** or a metal salt of an alkyl sulfate. The reaction mixture utilized in this polymerization technique will normally contain from. . .

SUMM . . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**. It is generally preferred for the reaction mixture to contain from about 0.008 phm to about 0.5 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate. It is normally more preferred for the reaction mixture to contain from about 0.05 phm to about 0.3 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate.

SUMM . . . are useful in this invention are commercially available from a wide variety of sources. For instance, Du Pont sells sodium **alkylarylsulfonate** under the tradename Alkanol.TM., Browning Chemical Corporation sells sodium dodecylbenzene sulfonates under the tradename Ufaryl.TM. D1-85, and Ruetgers-Nease Chemical Company sells sodium **cumene sulfonate** under the tradename Naxonate Hydrotrope.TM.. Some representative examples of sulfonate surfactants which can be used include sodium toluene-xylene sulfonate, sodium **toluene sulfonate**, sodium **cumene**

**sulfonates**, sodium decyldiphenylether sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.

SUMM . . . polypropylene adipate, modified polypropylene adipate; azelaic acid derivatives, such as dicyclohexyl azelate, di-(2-ethylhexyl)azelate, di-n-hexyl azelate, low temperature plasticizer, diisooctyl azelate; **benzoic acid** derivatives such as **diethylene glycol** dibenzoate, dipropylene glycol dibenzoate, **diethylene glycol** benzoate and dipropylene glycol benzoate blend, proprietary low stain, neopentyl glycol dibenzoate, glyceryl tribenzoate, timethylolethane tribenzoate, pentaerylthritol tribenzoate, cumylphenyl benzoate;. . . fumarate, diisooctyl fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such as **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, **triethylene glycol** di-(2-ethylbutyrate), **triethylene glycol** di-caprylatecaprate, **triethylene glycol** di-(2-ethylhexoate), **triethylene glycol** dicaprylate, tetraethylene glycol dicaprylate, polyethylene glycol di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of vegetable oil fatty acid, **triethylene glycol** ester of fatty acid; linear dibasic acid derivatives such as mixed dibasic ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric. . . derivatives such as 2,2,4-trimethyl-1,3-pentanediol diisobutyrate; isophthalic acid derivatives such as di(2-ethylhexyl)isophthalate, diisooctyl isophthalate, dioctylisophthalate; lauric acid derivatives such as butyllaurate, 1,2-**propylene glycol** monolaurate, **ethylene glycol** monoethyl ether laurate, **ethylene glycol** monobutyl ether laurate, glycerol monolaurate, polyethylene glycol-400-dilaurate; mellitates such as n-octyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl trimellitate, tricapryl. . . triisodecyl trimellitate, tri(C.sub.7-9 alkyl)trimellitate, tri-2-ethylhexyl trimellitate; nitrile derivatives such as fatty acid nitrile; oleic acid derivatives such as butyl oleate, 1,2-**propylene glycol** mono oleate, **ethylene glycol** monobutyl ether oleate, tetrahydrofurfuryl oleate, glyceryl monoleate; paraffin derivatives such as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl)phosphate, tributoxyethyl phosphate, triphenyl phosphate,. . .

AN 95:97077 USPATFULL

TI Rubbery polymer

IN Ngoc, Hung D., Limeil Brevannes, France

Salazar, Mariano, Orsay, France

PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S. corporation)

PI US 5462993 19951031 <--

AI US 1995-440593 19950515 (8)

RLI Division of Ser. No. US 1994-306291, filed on 15 Sep 1994, now patented, Pat. No. US 5415940 which is a division of Ser. No. US 1993-43076, filed on 5 Apr 1993, now patented, Pat. No. US 5380785

DT Utility

EXNAM Primary Examiner: Nagumo, Mark

LREP Rockhill, Alvin T.

CLMN Number of Claims: 17  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 820  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 14 OF 36 USPATFULL

PI US 5427774 19950627

<--

SUMM . . . C.sub.1 to C.sub.8 alkyl and the quaternizing agent is halogen,

an anion forming organic moiety, e.g. alkyl such as tolyl, **alkyl sulfonate**, etc.

SUMM . . . a methyl vinyl ether/maleic anhydride copolymer, a vinyl pyrrolidone/vinyl acetate copolymer, etc.; a preservative such as bronopol, an ester of **p-hydroxybenzoic acid**, 2-methyl-3(2H) isothiazolone, a mixture of methyl and propyl paraben, dimethyl-5,5-dimethylhydantoin, Germall.RTM. 115, imidazolidinyl urea, etc.; a sequestrant, and an antistatic. . .

SUMM . . . % w/w

---

Phase A

Mineral oil (and) lanolin alcohol

5.0

Isopropyl palmitate 10.0

Beeswax 8.0

Sorbitan sesquioleate 2.0

Mineral oil 25.0

Sunscreen 6.0

Benzophenone-3 4.0

Phase B

Water QS

Borax 0.4

Preservative QS

**Propylene glycol** 5.0

Phase C

Fragrance 0.25

C. Formula type: SUN BLOCK CREAM

Ingredient % w/w

---

Phase A

Isopropyl myristate 9.0

Sunscreen 10.0

Benzophenone-3 5.0

Menthyl anthranilate 5.0

Stearic acid XXX 5.0

Glyceryl. . . 0.3

DEA-cetyl phosphate 8.0

Preservative QS

Glycerine 3.5

Phase C

Fragrance 0.25

D. Formula type: WATER-PROOF LOTION Expected SPF: 15

Ingredient % w/w

---

Phase A

Sunscreen 8.0

Benzophenone-3 4.0

Myristyl myristate 1.0

**Propylene glycol** dipelargonate

5.0

Steareth-20 1.0

Phase B

Water QS

Carbomer 1342 0.2

Preservative QS

**Propylene glycol** 5.0

Phase C	
PEG-15 cocamine	0.2
Phase D	
Fragrance	0.25
E. Formula type: CATIONIC SUNSCREEN LOTION	
Ingredient	% w/w

---

Phase A	
Glycol stearate	5.0
C.sub.12-15 alcohols benzoate	3.5
Sunscreen	5.0
PEG-40. . .	4.0
Cetyl alcohol	0.5
Vitamin E acetate	0.1
Phase B	
Water	QS
Hydroxypropyl cellulose	0.5
Triethanolamine 99%	0.5
Ethanol	20.0
Preservative	QS
J. Formula type: Sunscreen mousse	
Ingredient	% w/w

---

Water	QS
<b>Propylene glycol</b>	5.0
Quaternium-26	3.0
Octyl methoxy cinnamate	3.0
Cetearyl alcohol (and) ceteareth-20	1.0
Octyldodecanol	5.0
Preservative	QS
K. Formula type: MAKE-UP MOUSSE	
Ingredient	% w/w

---

Phase A	
Glyceryl dilaurate	2.5
Glyceryl stearate SE	3.0
Cetyl alcohol	1.5
Decyl oleate	2.5
<b>Propylene glycol</b> depelargonate	3.0
Sunscreen	3.5
Phase B	
Water	QS
Hydroxyethylcellulose	0.5
Sorbitol 70%	5.0
Pigment	15.0
Preservative	QS
Phase C	
Ethanol	20.0
L. Formula type: SUNSCREEN GELEE	
Ingredient	% w/w

---

Myristyl lactate	5.0
Tridecylneopentanoate. . .	
SUMM . . . --COOH groups)	55% solids
Butoxy methylol melamine-	
	230
formaldehyde resin - 55% solids	
Butyl alcohol	37
Toluene sulfonic acid 50% in xylene	
	2.6
Xylene	75.0
Sunscreen	5.4
<b>Propylene glycol</b> methyl ether acetate	



40.0  
100.00

Total solids 45 wt. %  
Pigment solids 25 wt. %  
Crosslinker of polymer 30%  
White Aircraft TopCoat  
1:1 Aliphatic isocyanate-polyester

DETD This product is converted to the quaternized p-toluene  
**sulfonate** salt by reaction with hexadecyl-p-toluene  
**sulfonate** at about 125.degree. C. as the final  
hexadecyl[2-N-(p-dimethylaminobenzamido)propyl] morpholonium p-  
**toluene sulfonate**.

AN 95:57883 USPATFULL

TI Heterocyclic quaternary salts of para-dialkylamino benzamide  
derivatives

IN Chaudhuri, Ratan K., Butler, NJ, United States

Alexander, Anatoly, Berkeley Heights, NJ, United States

Gripp, Anna A., Whippany, NJ, United States

PA ISP Van Dyk Inc., Belleville, NJ, United States (U.S. corporation)

PI US 5427774 19950627 <--

AI US 1994-356616 19941215 (8)

RLI Continuation-in-part of Ser. No. US 1993-111690, filed on 25 Aug 1993

DT Utility

EXNAM Primary Examiner: Brust, Joseph Paul

LREP Maue, Marilyn J., Ward, Joshua J.

CLMN Number of Claims: 16

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 614

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 15 OF 36 USPATFULL

PI US 5427773 19950627 <--

SUMM . . . A is C.sub.1 to C.sub.8 alkyl and the quaternizing agent is  
halogen, an anion forming organic moiety, e.g. alkyl tosylate,  
**alkyl sulfonate**, etc.

SUMM . . . a methyl vinyl ether/maleic anhydride copolymer, a vinyl  
pyrrolidone/vinyl acetate copolymer, etc.; a preservative such as  
bronopol, an ester of p-**hydroxybenzoic acid**,  
2-methyl-3(2H) isothiazolone, a mixture of methyl and propyl paraben,  
dimethyl-5,5-dimethylhydantoin, Germall.RTM. 115, imidazolidinyl urea,  
etc.; a sequestrant, and an antistatic. . .

SUMM . . . Beeswax 8.0

Sorbitan sesquioleate	2.0
Mineral oil	25.0
Sunscreen	6.0
Benzophenone-3	4.0
Phase B	
Water	QS
Borax	0.4
Preservative	QS
<b>Propylene glycol</b>	5.0
Phase C	
Fragrance	0.25

---

Ingredient	% w/w
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---

C. Formula type: SUN BLOCK CREAM

Phase A

Isopropyl myristate 9.0

Sunscreen 10.0

. . . Phase C

Fragrance 0.25

D. Formula type: WATER-PROOF LOTION

Expected SPF: 15

Phase A	
Sunscreen	8.0
Benzophenone-3	4.0
Myristyl myristate	1.0
<b>Propylene glycol</b> dipelargonate	
	5.0
Steareth-20	1.0
Phase B	
Water	QS
Carbomer 1342	0.2
Preservative	QS
<b>Propylene glycol</b>	5.0
Phase C	
PEG-15 cocamine	0.2
Phase D	
Fragrance	0.25
E. Formula type: CATIONIC SUNSCREEN	
LOTION	
Phase A	
Glycol stearate	5.0
Phase B	
Water	QS
Hydroxypropyl cellulose	0.5
Triethanolamine 99%	0.5
Ethanol	20.0
Preservative	QS
J. Formula type: Sunscreen mousse	
Water	QS
<b>Propylene glycol</b>	5.0
Quaternium-26	3.0
Octyl methoxy cinnamate	3.0
Cetearyl alcohol (and) ceteareth-20	
	1.0
Octyldodecanol	5.0
Preservative	QS
K. Formula type: MAKE-UP MOUSSE	
Phase A	
Glyceryl dilaurate	2.5
Glyceryl stearate SE	3.0
Cetyl alcohol	1.5
Decyl oleate	2.5
<b>Propylene glycol</b> depelargonate	
	3.0
Sunscreen	3.5
Phase B	
Water	QS
Hydroxyethylcellulose	0.5
Sorbitol 70%	5.0
Pigment	15.0
Preservative	QS
Phase C	
Ethanol. . .	
SUMM . . . --COOH groups) 55% solids	
Butoxy methylol melamine-	
	230
formaldehyde resin - 55% solids	
Butyl alcohol	37
Toluene sulfonic acid 50% in xylene	
	2.6
Xylene	75.0
Sunscreen	5.4
<b>Propylene glycol</b> methyl ether acetate	
	40.0
	100.00
Total solids	45 wt. %
Pigment solids	25 wt. %

Crosslinker of polymer 30%  
White Aircraft TopCoat  
1:1 Aliphatic isocyanate-polyester

DETD The synthesis as described in Example 2 was repeated except that 122.8  
g of hexadecyl-p-**toluene sulfonate** (0.31 mole) was used as the quaternizing agent. The quaternized product yield was 181.8 g (91% of theoretical).

DETD The synthesis as described in Example 1 was repeated except that 105.4  
g of dodecyl-p-**toluene sulfonate** (0.31 mole) was used as the quaternizing agent and the quaternized product was crystallized from 1000 ml of methylethylketone. The. . .

DETD . . . the following tests were carried out on the compounds of Examples 2 and 4. These were compared with benzylidene camphor para-**toluene sulfonate** (A) and 4-[(2-oxo-3-bornylidene)methyl]-phenyldimethyldodecylammonium paratoluene sulfonate (b) as disclosed in U.S. Pat. No. 4,061,730 and octyl-para-dimethylamino benzoate (C).

CLM What is claimed is:

. . . 3. The quaternary salt of claim 1 wherein said anion is selected from the group of chloride, bromide, alkyl sulfate, **alkyl sulfonate** and p-tolyl sulfonate.

AN 95:57882 USPATFULL|  
TI Quaternary salts of dialkylaminobenzamides|  
IN Chaudhuri, Ratan K., Butler, NJ, United States  
Alexander, Anatoly, Berkeley Heights, NJ, United States  
Gripp, Anna A., Whippany, NJ, United States  
PA ISP Van Dyk Inc., Belleville, NJ, United States (U.S. corporation)  
PI US 5427773 19950627 <--  
AI US 1994-356417 19941215 (8)  
RLI Continuation-in-part of Ser. No. US 1993-111690, filed on 25 Aug 1993  
DT Utility|  
EXNAM Primary Examiner: Brust, Joseph Paul|  
LREP Maue, Marilyn J., Ward, Joshua J.|  
CLMN Number of Claims: 35|  
ECL Exemplary Claim: 1|  
DRWN No Drawings  
LN.CNT 828|  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 16 OF 36 USPATFULL

PI US 5415940 19950516 <--

SUMM . . . typically a multi-functional acrylate, a multi-functional methacrylate or divinylbenzene. Some specific examples of crosslinking agents which can be used include **ethylene glycol** methacrylate, divinylbenzene, and 1,4-butanediol dimethacrylate.

SUMM . . . monomers, a suitable free radical initiator, a crosslinking agent, a half ester maleate soap, and a metal salt of an **alkyl sulfonate** or a metal salt of an alkyl sulfate. The reaction mixture utilized in this polymerization technique will normally contain from. . .

SUMM . . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**. It is generally preferred for the reaction mixture to contain from about 0.008 phm to about 0.5 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate. It is normally more preferred for the reaction mixture to contain from about 0.05 phm to about 0.3 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate.

SUMM . . . are useful in this invention are commercially available from a

wide variety of sources. For instance, Du Pont sells sodium **alkylarylsulfonate** under the tradename Alkanol.TM., Browning Chemical Corporation sells sodium dodecylbenzene sulfonates under the tradename Ufaryl.TM. DI-85, and Ruetgers-Nease Chemical Company sells sodium **cumene sulfonate** under the tradename Naxionate Hydrotrope.TM.. Some representative examples of sulfonate surfactants which can be used include sodium toluene-xylene sulfonate, sodium **toluene sulfonate**, sodium **cumene sulfonates**, sodium decyldiphenylether sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.

SUMM . . . adipate, modified polypropylene adipate; azelaic acid derivatives, such as dicyclohexyl azelate, di-(2-ethylhexyl) azelate, di-n-hexyl azelate, low temperature plasticizer, diisooctyl azelate; **benzoic acid** derivatives such as **diethylene glycol** dibenzoate, dipropylene glycol dibenzoate, **diethylene glycol** benzoate and dipropylene glycol benzoate blend, proprietary low stain, neopentyl glycol dibenzoate, glyceryl tribenzoate, timethylolethane tribenzoate, pentaerylthritol tribenzoate, cumylphenyl benzoate; . . . fumarate, diisooctyl fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such as **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, **triethylene glycol** di-(2-ethylbutyrate), **triethylene glycol** dicaprylatecaprate, **triethylene glycol** di-(2-ethylhexoate), **triethylene glycol** dicaprylate, tetraethylene glycol dicaprylate, polyethylene glycol di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of vegetable oil fatty acid, **triethylene glycol** ester of fatty acid; linear dibasic acid derivatives such as mixed dibasic ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric. . . such as 2,2,4-trimethyl-1,3-pentanediol diisobutyrate;

isophthalic acid derivatives such as di(2-ethylhexyl) isophthalate, diisooctyl isophthalate, dioctylisophthalate; lauric acid derivatives such as butyllaurate, 1,2-**propylene glycol** monolaurate, **ethylene glycol** monoethyl ether laurate, **ethylene glycol** monobutyl ether laurate, glycerol monolaurate, polyethylene glycol-400-dilaurate; mellitates such as n-octyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl trimellitate, tricapryl. . . trimellitate, tri(C.sub.7-9 alkyl) trimellitate, tri-2-ethylhexyl trimellinate; nitrile derivatives such as fatty acid nitrile; oleic acid derivatives such as butyl oleate, 1,2-**propylene glycol** mono oleate, **ethylene glycol** monobutyl ether oleate, tetrahydrofurfuryl oleate, glyceryl monooleate; paraffin derivatives such as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl) phosphate, tributoxyethyl phosphate, triphenyl. . .

AN 95:43101 USPATFULL

TI Rubbery polymer

IN Ngoc, Hung D., Limeil Brevannes, France

Salazar, Mariano, Orsay, France

PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S. corporation)

PI US 5415940 19950516 <--

AI US 1994-306291 19940915 (8)

RLI Division of Ser. No. US 1993-43076, filed on 5 Apr 1993, now patented,

Pat. No. US 5380785  
DT Utility  
EXNAM Primary Examiner: Nagumo, Mark  
LREP Rockhill, Alvin T.  
CLMN Number of Claims: 12  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 838  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 17 OF 36 USPATFULL

PI US 5380785 19950110

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DETD . . . typically a multi-functional acrylate, a multi-functional methacrylate or divinylbenzene. Some specific examples of crosslinking agents which can be used include **ethylene glycol** methacrylate, divinylbenzene, and 1,4-butanediol dimethacrylate.

DETD . . . monomers, a suitable free radical initiator, a crosslinking agent, a half ester maleate soap, and a metal salt of an **alkyl sulfonate** or a metal salt of an alkyl sulfate. The reaction mixture utilized in this polymerization technique will normally contain from. . .

DETD . . . of at least one member selected from the group consisting of metal salts of alkyl sulfates and metal salts of **alkyl sulfonates**. It is generally preferred for the reaction mixture to contain from about 0.008 phm to about 0.5 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate. It is normally more preferred for the reaction mixture to contain from about 0.05 phm to about 0.3 phm of the metal salt of the **alkyl sulfonate** or the metal salt of the alkyl sulfate.

DETD . . . are useful in this invention are commercially available from a wide variety of sources. For instance, Du Pont sells sodium **alkylarylsulfonate** under the tradename Alkanol.TM., Browning Chemical Corporation sells sodium dodecylbenzene sulfonates under the tradename Ufaryl.TM. D1-85, and Ruetgers-Nease Chemical Company sells sodium **cumene sulfonate** under the tradename Naxonate Hydrotrope.TM.. Some representative examples of sulfonate surfactants which can be used include sodium toluene-xylene sulfonate, sodium **toluene sulfonate**, sodium **cumene sulfonates**, sodium decyldiphenylether sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.

DETD . . . adipate, modified polypropylene adipate; azelaic acid derivatives, such as dicyclohexyl azelate, di-(2-ethylhexyl) azelate, di-n-hexyl azelate, low temperature plasticizer, diisooctyl azelate; **benzoic acid** derivatives such as **diethylene glycol** dibenzoate, dipropylene glycol dibenzoate, **diethylene glycol** benzoate and dipropylene glycol benzoate blend, proprietary low stain, neopentyl glycol dibenzoate, glyceryl tribenzoate, trimethylolpropane tribenzoate, pentaerythritol tribenzoate, cumylphenyl benzoate;. . . fumarate, diisooctyl fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such as **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, **triethylene glycol** di-(2-ethylbutyrate), **triethylene glycol** di-caprylatecaprate, **triethylene glycol** di-(2-ethylhexoate), **triethylene glycol** dicaprylate, tetraethylene glycol dicaprylate, polyethylene glycol di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of vegetable oil fatty acid, **triethylene glycol** ester of fatty acid; linear dibasic acid derivatives such as mixed dibasic ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric. . . such as 2,2,4-trimethyl-1,3-pentanediol diisobutyrate;

isophthalic

acid derivatives such as di(2-ethylhexyl) isophthalate, diisooctyl isophthalate, dioctylisophthalate; lauric acid derivatives such as butyllaurate, 1,2-**propylene glycol** monolaurate, **ethylene glycol** monoethyl ether laurate, **ethylene glycol** monobutyl ether laurate, glycerol monolaurate, polyethylene glycol-400-dilaurate; mellitates such as n-octyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl trimellitate, tricapryl. . . trimellitate, tri(C.sub.7-9 alkyl) trimellitate, tri-2-ethylhexyl trimellitate; nitrile derivatives such as fatty acid nitrile; oleic acid derivatives such as butyl oleate, 1,2-**propylene glycol** mono oleate, **ethylene glycol** monobutyl ether oleate, tetrahydrofurfuryl oleate, glyceryl monoleate; paraffin derivatives such as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl) phosphate, tributoxyethyl phosphate, triphenyl. . .

AN 95:3901 USPATFULL  
 TI Rubbery polymer  
 IN Ngoc, Hung D., Limeil Brevannes, France  
 PA Salazar, Mariano, Orsay, France  
 PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S. corporation)  
 PI US 5380785 19950110 <--  
 AI US 1993-43076 19930405 (8)  
 DT Utility  
 EXNAM Primary Examiner: Nagumo, Mark  
 LREP Rockhill, Alvin T.  
 CLMN Number of Claims: 12  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 837  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 18 OF 36 USPATFULL  
 PI US 5362787 19941108 <--  
 DETD . . . typically a multi-functional acrylate, a multi-functional methacrylate or divinylbenzene. Some specific examples of crosslinking agents which can be used include **ethylene glycol** methacrylate, trimethylol propane trimethacrylate (TRIM), divinylbenzene (DVB), and 1,4-butanediol dimethacrylate.  
 DETD . . . of this invention. Sulfonate surfactants are commercially available from a wide variety of sources. For instance, Du Pont sells sodium **alkylarylsulfonate** under the tradename Alkanol.RTM., Browning Chemical Corporation sells sodium dodecylbenzene sulfonates under the tradename Ufaryl.RTM. D1-85, and Ruetgers-Nease Chemical Company sells sodium **cumene sulfonate** under the tradename Naxonate Hydrotrope.RTM.. Some representative examples of sulfonate surfactants which can be used include sodium toluene-xylene sulfonate, sodium **toluene sulfonate**, sodium **cumene sulfonates**, sodium decyldiphenylether sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.  
 DETD . . . weight adipate, polypropylene adipate, modified polypropylene adipate; azelaic acid derivatives, such as dicyclohexyl azelate, di-(2-ethylhexyl) azelate, di-n-hexyl azelate, diisooctyl azelate; **benzoic acid** derivatives such as **diethylene glycol** dibenzoate, dipropylene glycol dibenzoate, **diethylene glycol** benzoate and dipropylene glycol

benzoate blend, neopentyl glycol dibenzoate, glyceryl tribenzoate, timethylolethane tribenzoate, pentaerythritol tribenzoate, cumylphenyl benzoate; polyphenyl derivatives such as fumarate, diisooctyl fumarate, dioctyl fumarate; glutaric acid derivatives such as mixed dialkyl glutarates and dicumylphenyl glutarate; glycol derivatives such as **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, **triethylene glycol** di-(2-ethylbutyrate), **triethylene glycol** di-caprylatecaprate, **triethylene glycol** di-(2-ethylhexoate), **triethylene glycol** dicaprylate, tetraethylene glycol dicaprylate, polyethylene glycol di-(2-ethylhexoate), butyl phthalyl butyl glycolate, triglycolester of vegetable oil fatty acid, **triethylene glycol** ester of fatty acid; linear dibasic acid derivatives such as mixed dibasic ester; petroleum derivatives such as aromatic hydrocarbons; isobutyric. . . such as 2,2,4-trimethyl-1,3-pentanediol diisobutyrate;

isophthalic acid derivatives such as di(2-ethylhexyl) isophthalate, diisooctyl isophthalate, dioctylisophthalate; lauric acid derivatives such as butyllaurate, 1,2-**propylene glycol** monolaurate, **ethylene glycol** monoethyl ether laurate, **ethylene glycol** monobutyl ether laurate, glycerol monolaurate, polyethylene glycol-400-dilaurate; mellitic acid derivatives such as n-octyl, n-decyl trimellitate, tri-n-octyl-n-decyl trimellitate, triisononyl trimellitate, triisooctyl. . . trimellitate, tri(C.sub.7-9 alkyl) trimellitate, tri-2-ethylhexyl trimellitate; nitrile derivatives such as fatty acid nitrile; oleic acid derivatives such as butyl oleate, 1,2-**propylene glycol** mono oleate, **ethylene glycol** monobutyl ether oleate, tetrahydrofurfuryl oleate, glyceryl monoleate; paraffin derivatives such as chlorinated paraffins, **diethylene glycol** dipelargonate, **triethylene glycol** dipelargonate, 2-butoxyethyl dipelargonate; phenoxy plasticizers such as acetyl paracumyl phenol; phosphoric acid derivatives such as tri-(2-ethylhexyl) phosphate, tributoxyethyl phosphate, triphenyl. . .

CLM What is claimed is:  
. . . 8. A rubbery composition as specified in claim 7 wherein the crosslinking agent is selected from the group consisting of **ethylene glycol** methacrylate, trimethylol propane trimethacrylate, divinylbenzene, and 1,4-butanediol dimethacrylate.

AN 94:97624 USPATFULL|  
TI Rubbery blend having low permanent compression set|  
IN Ngoc, Hung D., Limeil Brevannes, France  
Duval, Guy P. R., Paris, France  
PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S. corporation)  
PI US 5362787 19941108 <--  
AI US 1993-154053 19931118 (8)  
DT Utility|  
EXNAM Primary Examiner: Michl, Paul R.|  
LREP Rockhill, Alvin T.|  
CLMN Number of Claims: 9|  
ECL Exemplary Claim: 1|  
DRWN No Drawings  
LN.CNT 667|  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 19 OF 36 USPATFULL  
PI US 5272035 19931221 <--  
DETD . . . diisocyanate compounds that are the reaction products of diols and diisocyanates, such as the addition product of 1 mole of 1,3-**butylene glycol**, and 2 moles of tolylene diisocyanate,

and the like.

DETD . . . included in the scope of the diol compounds with carboxyl groups indicated by general formula (II), (III) or (IV): 3,5-dihydroxy **benzoic acid**, 2,2-bis(hydroxymethyl) propionic acid, 2,2 bis(2-hydroxyethyl) propionic acid, 2,2 bis(3-hydroxypropyl) propionic acid, bis(hydroxymethyl) acetic acid, bis(4-hydroxyphenyl) acetic acid, 4,4-bis(4-hydroxyphenyl) pentanoic acid, . . .

DETD Specific examples of this kind of diol are given below: **ethylene glycol**; **diethylene glycol**; **triethylene glycol**; tetraethylene glycol; **propylene glycol**; dipropylene glycol; polyethylene glycol; polypropylene glycol; neopentyl glycol; 1,3-**butylene glycol**; 1,4-butane diol; 1,5-pentane diol; 1,6-hexane diol; 2-butene-1,4-diol; 2-butyne-1,4-diol, 2,2,4-trimethyl-1,3-pentane diol; 2,2-diethyl-1,3-propane diol; 1,4-bis-.beta.-hydroxyethoxy cyclohexane; cyclohexane diol; cyclohexane dimethanol; tricyclodecane dimethanol;.

DETD . . . various salts of the condensation products of p-diazodiphenylamine and formaldehyde, as described in U.S. Pat. No. 3,300,309, such as sulfonates (p-**toluene sulfonate**, dodecylbenzene sulfonate and 2-methoxy-4-hydroxy-5-benzoylbenzene sulfonate, etc.), phosphinates (benzene phosphinate, etc.), hydroxy group-containing compound salts (2,4-hydroxy benzophenone salt, etc.), and organic. . .

DETD . . . alkaline aqueous developer comprising an organic solvent having

a solubility in water of less than 10% by weight (benzyl alcohol, **ethylene glycol** monophenyl ether, etc.), an alkali (triethanolamine, monoethanolamine, etc.), an anionic surfactant (an aromatic sulfonate, dialkyl sulfosuccinate, alkyl naphthalene sulfonate, a branched **alkyl sulfonate** salt of the following formula: ##STR7## among other surfactants), and water. If necessary, one

can also add to the developer. . .

DETD . . . equipped with a stirrer and an condenser, 11.5 g (0.0680 mole) of 2,2-bis(hydroxymethyl) propionic acid, 7.26 g (0.0684 mole) of **diethylene glycol**, and 4.11 g (0.0456 mole) of 1,4-butane diol were added and dissolved in 118 g of N,N-dimethyl acetamide. To the. . .

DETD . . . 3M Corporation, U.S.A)

Tricresyl phosphate	0.25 g
Pivalic acid ester (esterification	0.1 g

rate 83 mol %) of poly-p-hydroxystyrene (average molecular weight 5,000)

1-methoxy-2-propanol	40 g
<b>ethylene glycol</b> monomethyl ether	10 g
methyl alcohol	20 g
methyl ethyl ketone	30 g

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CLM What is claimed is:

. . . printing plate according to claim 9, wherein said diol compound further comprises a diol selected from the group consisting of **ethylene glycol**; **diethylene glycol**; **triethylene glycol**; tetraethylene glycol; **propylene glycol**; dipropylene glycol; polyethylene glycol; polypropylene glycol; neopentyl glycol; 1,3-**butylene glycol**; 1,4-butane diol; 1,5-pentane diol; 1,6-hexane diol; 2-butene-1,4-diol; 2-butyne-1,4-diol; 2,2,4-trimethyl-1,3-pentane diol; 2,2-diethyl-1,3-propane diol; 1,4-bis-.beta.-hydroxyethoxy cyclohexane; cyclohexane diol; cyclohexane dimethanol; tricyclodecane dimethanol;.

. . . dimer acid diisocyanate, isophorone diisocyanate, 4-4'-methylene



bis(cyclohexylioscyanate), methylcyclohexane-2,4 (or 2,6)-diisocyanate, 1,3-(isocyanatemethyl) cyclohexane, and the addition product of 1 mole of 1,3-**butylene glycol** and 2 moles of tolylene diisocyanate.

. . . carboxyl groups represented by formula (II), (III) or (IV), are at least one selected from the group consisting of 3,5-dihydroxy **benzoic acid**, 2,2-bis(hydroxymethyl)propionic acid, 2,2-bis(2-hydroxyethyl)propionic acid, 2,2-bis(3-hydroxypropyl)propionic acid, bis(hydroxymethyl)acetic acid, bis(4-hydroxyphenyl)acetic acid, 4,4-bis(4-hydroxyphenyl)pentanoic acid, tartaric acid, and N,N-bis(2-hydroxyethyl)-3-carboxy propionamide.

AN 93:106907 USPATFULL|  
TI Photosensitive lithographic printing plate having treated aluminum support with diazonium light-sensitive layer containing polyurethane resin and phosphorous additive|  
IN Sekiya, Toshiyuki, Shizuoka, Japan  
PA Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)  
PI US 5272035 19931221 <--  
AI US 1991-700435 19910515 (7)  
PRAI JP 1990-130857 19900521  
DT Utility|  
EXNAM Primary Examiner: Bowers, Jr., Charles L.; Assistant Examiner: Young, Christopher G.|  
LREP Burns, Doane, Swecker & Mathis|  
CLMN Number of Claims: 19|  
ECL Exemplary Claim: 1|  
DRWN No Drawings  
LN.CNT 775|  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 20 OF 36 USPATFULL

PI US 5194469 19930316 <--

SUMM . . . that are useful in this invention are commercially available from a wide variety of sources. For instance, DuPont sells sodium **alkylarylsulfonate** under the tradename Alkanol.TM., Browning Chemical Corporation sells sodium dodecylbenzene sulfonates under the tradename Ufaryl.TM. DL-85, and Ruetgers-Nease Chemical Company sells sodium **cumene sulfonate** under the tradename Naxonate Hydrotrope.TM.. Some representative examples of sulfonate surfactants which can be used include sodium toluene-xylene sulfonate, sodium **toluene sulfonate**, sodium **cumene sulfonates**, sodium decyldiphenylether sulfonate, sodium dodecylbenzenesulfonate, sodium dodecyldiphenylether sulfonate, sodium 1-octane sulfonate, sodium tetradecane sulfonate, sodium pentadecane sulfonate, sodium heptadecane sulfonate, and potassium **toluene sulfonate**.

SUMM . . . and even more preferably for it to be water soluble. Of the various solvents which can be used, generally the **ethylene glycol** monobutyl ether, **ethylene glycol** monoethyl ether, **diethylene glycol** monomethyl ether, **diethylene glycol** monoethyl ether and **diethylene glycol** monobutyl ether are preferred. It should be noted that the solvent and plasticizer can be mixed directly with the resin. . .

SUMM . . . plasticizers such as phosphoric acid esters, phthalic anhydride esters and trimellitic acid esters as well as N-cyclohexyl-p-toluene sulfonamide, dibenzyl sebacate, **diethylene glycol** dibenzoate, di-t-octylphenylether, dipropylene diol dibenzoate, N-ethyl-p-toluene sulfonamide, isopropylidenediphenoxypropanol, alkylated naphthalene, polyethylene glycol dibenzoate, o-p-toluene sulfonamide, trimethylpentanediol dibenzoate and trimethylpentanediol monoisobutyrate. . .

SUMM . . . sebacic acid esters, stearic acid esters, epoxidized esters,  
as  
well as 1,4-butane diol dicaprylate, butoxyethyl pelargonate  
di[(butoxyethoxy)ethoxy] methane, dibutyl tartrate, **diethylene**  
**glycol** dipelargonate, diisooctyl diglycolate, isodecyl  
nonanoate, tetraethylene glycol di(2-ethylbutyrate), **triethylene**  
**glycol** di(2-ethyl-hexanoate), **triethylene**  
**glycol** dipelargonate and 2,2,4-trimethyl-1,3-pentane diol  
diisobutyrate.

SUMM Additional various plasticizers, cyclic, acyclic, and otherwise,  
include  
chlorinated paraffins, hydrogenated terphenyls, substituted phenols,  
**propylene glycols**, polypropylene glycol esters,  
polyethylene glycol esters, melamines, epoxidized soys, oils,  
melamines,  
liquid, hydrogenated abietate esters, epoxytallate esters, alkyl  
phthalyl alkyl. . .

SUMM . . . preferred esters are prepared from the reaction of carboxylic  
and dicarboxylic acids including fatty acids, such as the phthalic  
acids, **benzoic acid**, dibenzoic acid, adipic acid,  
sebacic acid, stearic acid, maleic acid, tartaric acid, succinic acid,  
butyric acid, fumaric acid and glutaric. . .

DETD . . . described in Example 1. This roof coating formulation was made  
by first mixing 57.6 kg of water, 7.4 kg of **ethylene**  
**glycol**, 454 grams of ammonia, 2.9 kg of Surfynol 104 (antifoam  
agent) 27.8 kg titanium dioxide, 236.9 kg calcium carbonate, and. . .

DETD . . . invention with 38% to 48% calcium carbonate, 2% to 10%  
titanium  
dioxide, 5% to 15% additional water, 0.5% to 2% **ethylene**  
**glycol**, 0.05% to 0.2% ammonia, 0.02% to 1.5% antifoam agent, 1%  
to 5% plasticizer, 0.2% to 1.5% antibacterial agent and 0.2%. . .

CLM What is claimed is:  
. . . claim 2, 38% to 48% calcium carbonate, 2% to 10% titanium dioxide,  
5%  
to 15% additional water, 0.5% to 2% **ethylene glycol**,  
0.05% to 0.2% ammonia, 0.02% to 1.5% antifoam agent, 1% to 5%  
plasticizer, 0.2% to 1.5% antibacterial agent and 0.2%. . .

AN 93:20565 USPATFULL|  
TI Latex for coatings having improved flexibility|  
IN Sraile, Richard E., Cuyahoga Falls, OH, United States  
Burroway, Gary L., Doylestown, OH, United States  
PA The Goodyear Tire & Rubber Company, Akron, OH, United States (U.S.  
corporation)  
PI US 5194469 19930316 <--  
AI US 1991-662091 19910228 (7)  
DT Utility|  
EXNAM Primary Examiner: Michl, Paul R.; Assistant Examiner: Merriam, Andrew|  
LREP Rockhill, Alvin T.|  
CLMN Number of Claims: 20|  
ECL Exemplary Claim: 1|  
DRWN No Drawings  
LN.CNT 601|  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 21 OF 36 USPATFULL  
PI US 5109127 19920428 <--  
DETD . . . silica and silicate (blending amount: 10 to 95% by weight  
based  
on the entire composition), humectants such as glycerol, sorbitol,  
**propylene glycol** and polyethylene glycol (blending  
amount: 10 to 70% by weight based on the entire composition), binders  
such as sodium carboxymethyl. . .

DETD . . . or amine oxide, emulsifying agent such as higher fatty acid  
glycol ester or high molecular emulsion, hydrotrope such as ethanol,  
**propylene glycol**, polyethylene glycol or glycerol,  
emollient such as oil and fat, higher alcohol ester, lanolin  
derivative,

protein derivative, squalane or cationized cellulose, viscosity improver  
 such as cellulose derivative, polyvinyl alcohol, carboxyvinyl polymer, polyvinyl pyrrolidone and sodium chloride, preservative such as **benzoic acid, benzoic acid ester**  
 or sorbic acid, metal chelating agent such as EDTA, NTA or citric acid, pH controller such as sodium phosphate, . . .

DETD

Formulation of toothpaste  
 composition wt %

Calcium secondary phosphate	45.0
Silicic anhydride	3.0
Sodium carboxymethyl cellulose	0.8
Carrageenan	0.2
Sorbitol	26.0
<b>Propylene glycol</b>	3.0
Sodium saccharinate	0.2
Flavor	1.0
Foaming agent	2.0
Purified water	balance
Total	100.0%

DETD

Formulation of toothpaste  
 composition (unit %)

Calcium secondary phosphate	45.0
Silicic anhydride	3.0
Sodium carboxymethyl cellulose	0.8
Carrageenan	0.2
Sorbitol	26.0
<b>Propylene glycol</b>	3.0
Sodium saccharinate	0.2
Flavor	1.0
Foaming agent	amount shown in Table 1
Purified water	balance
Total	100.0

DETD

Formulation of toothpaste  
 composition wt %

Calcium secondary phosphate	45.0
Silicic anhydride	3.0
Sodium carboxymethyl cellulose	0.8
Carrageenan	0.2
Sorbitol	26.0
<b>Propylene glycol</b>	3.0
Sodium saccharinate	0.2
Flavor	1.0
Foaming agent	2.0
Purified water	balance
Total	100.0%

DETD

EDTA	0.05	Merck Co.)
Ethyleneglycol distearate	1.0	1.0
Trimethylammonium chloride	(C.sub.16 .about.C.sub.18)	

[illegible]

Sodium benzoate	1	1	1.	.	.
DETD	.	.	alkanol amide	5.0	
Perfume			appropriate		
			amount		
Water			balance		
Total			100.0%		
Glucose ester No. 4					
Glucose monooctanoate			85%		
Glucose monodecanoate			15%		
Blending Example 7 (Toothpaste)					
Aluminum hydroxide			40.0%		
Silicic anhydride			2.0		
<b>Propylene glycol</b>			3.0		
Sorbitol			26.0		
Sodium alginate			1.0		
Sodium saccharinate			0.2		
Glucose-5-monolaurate			0.7		
Sodium lauryl sulfate			0.7		
Flavor			1.0		
Preservative			trace		
Purified water			balance		
Total			100.0%		
Blending Example 8 (Toothpaste)					
Calcium secondary phosphate			45.0%		
Silicic anhydride			3.0		
Sodium carboxymethyl cellulose			1.0		
Carrageenan			0.2		
<b>Propylene glycol</b>			3.0		
Sorbitol			26.0		
Sodium saccharinate			0.2		
Sodium monofluorophosphate			0.76		
Glucose-6-monolaurate			1.0		
Sodium lauryl sulfate			0.5		
Flavor			1.0		
Preservative			trace		
Purified water			balance		
Total			100.0%		
Blending Example 9 (Toothpaste)					
Calcium secondary phosphate			45.0%		
Silicic anhydride			3.0		
Aluminum oxide			1.0		
<b>Propylene glycol</b>			3.0		
Sorbitol			25.0		
Sodium carboxymethyl cellulose			0.8		
Carrageenan			0.3		
Sodium saccharinate			0.2		
Glucose-6-monocaprinate			1.0		
Sodium lauryl sulfate			0.5		
Arantoin chlorohydroxy aluminum			0.1		
Flavor			1.0		
Preservative			trace		
Purified water			balance		
Total			100.0%		
Blending. . . saccharinate				0.2	
Glucose-6-monocaprinate			1.0		
Sodium lauryl sulfate			0.5		
Flavor			1.0		
Coloring agent			trace		
Purified water			balance		
Total			100.0%		

Blending Example 12 (Toothpaste)

Calcium carbonate (heavy)	30.0%
Calcium carbonate (light)	15.0
<b>Propylene glycol</b>	3.0
Sorbitol	30.0
Sodium carboxymethyl cellulose	1.0
Sodium saccharinate	0.1
Tranexamic acid	0.1
Glucose-6-monocaprinate	1.5
Sodium myristyl sulfate	0.5
Flavor	1.0
Preservative	trace
Purified water	balance
Total	100.0%

Blending Example 13. . . acid

0.1

Sodium citrate	0.4
Sodium saccharinate	0.05
Glucose-6-monocaprylate	1.0
Sodium lauryl sulfate	0.5
Flavor	1.0
Purified water	balance
Total	100.0%

Blending Example 15 (Toothpaste)

Aluminum hydroxide	40.0%
Silicic anhydride	2.0
<b>Propylene glycol</b>	3.0
Sorbitol	15.0
Glycerol	15.0
Sodium alginate	1.0
Sodium saccharinate	0.2
Glucose-6-monolaurate	1.5
Sodium N-lauroyl glutamate	0.5
Flavor	1.0
Preservative	trace
Purified water	balance
Total	100.0%

Blending Example 16 (Toothpaste)

Aluminum silicate. . .	0.2
Glucose-6-monocaprinate	1.0
Sodium N-lauroyl sarcosinate	0.5
Flavor	1.0
Coloring agent	slight amount
Purified water	balance
Total	100.0%

Blending Example 17 (Toothpaste)

Calcium carbonate (heavy)	30.0%
Calcium carbonate (light)	15.0
<b>Propylene glycol</b>	3.0
Sorbitol	30.0
Sodium carboxymethyl cellulose	1.0
Sodium saccharinate	0.1
Tranexamic acid	0.1
Glucose-6-monocaprylate	1.5
Sodium N-myristoylmethyl-	-alanine
	0.5
Flavor	1.0
Preservative	trace
Purified water	balance

Total	100.0%
Blending Example 18 (Toothpaste)	
Calcium secondary phosphate	45.0%
Silicic anhydride	3.0
Aluminum oxide	1.0
<b>Propylene glycol</b>	3.0
Sorbitol	25.0
Sodium carboxymethyl cellulose	0.8
Carrageenan	0.3
Sodium saccharinate	0.2
Glucose-6-monocaprinate	1.0
Sodium N-lauroyl sarcosinate	0.5
Arantoin chlorohydroxy aluminum	0.1
Flavor	1.0
Preservative	trace
Purified water	balance
Total	100.0%
Blending. . . 0.4	
Sodium saccharinate	0.05
Glucose-6-monocaprylate	1.0
Sodium N-lauryol sarcosinate	0.5
Flavor	1.0
Purified water	balance
Total	100.0%
Blending Example 22 (Toothpaste)	
Aluminum hydroxide	45.0%
Sodium carboxymethyl cellulose	0.8
Carrageenan	0.2
Sorbitol	26.0
<b>Propylene glycol</b>	3.0
Sodium saccharinate	0.2
Sodium N-myristoyl taurine	1.5
Glucose-6-monolaurate	3.0
Flavor	1.0
Preservative	trace
Purified water	balance
Total	100.0%
Blending Example 23 (Mouthwash)	
Ethanol	10.0%
Glycerol	15.0
Citric acid	0.1
Sodium citrate. . .	balance
Total	100.0%
Blending Example 25 (Dish-wash detergent)	
Glucose-6-cocoyl monoester	5.0%
Sodium polyoxyethylene lauryl ether sulfate	10.0
Triethanol amine lauryl sulfate	5.0
Alkanol amide	3.0
Glycol distearate	1.0
<b>Propylene glycol</b>	0.2
<b>Benzoic acid</b>	1
Perfume	0.5
Dye	trace
Purified water	balance
Total	100.0%

---

DETD . . . . . (-p = 7)

10

Keratin hydrolysis product (average molecular weight 1000)  
0.1 0.1 0.1 0.1 0.1

Sodium benzoate 2 2 2 2 2

Sodium p-toluene sulfonate

4 4 4 4 4

Ethanol 7 7 7 7 7

Alkanolamide 2 2 2 2 2

Perfume 0.4 0.4 0.4 0.4 0.4

Dye. . .

DETD . . . 0.2

(manufactured by Union Carbide Co.)

Behenyl trimethyl ammonium chloride 2.42 2.42 2.42 2.42

(average molecular weight: 404)

Sodium lauroyl alanine (average molecular weight: 307) 1.23 1.23 1.23 1.23

**Propylene glycol**

5.0 5.0 5.0 5.0

Polyoxyethylene 2.0 2.0 2.0 2.0

(40 mol in average) hardened castor oil derivative

N-lauroyl dimethylamino. . . 5.0 5.0 5.0 5.0

DETD . . . chain rate: 40%, p = 5)

Branched C.sub.12 monoalkyl 8

dimethylamine oxide (branching rate: 50%)

Keratin hydrolysis product 0.1

(average molecular weight: 1000)

Sodium benzoate 2

Sodium p-toluene sulfonate

4

Ethanol 7

Alkanol amide 2

Perfume 0.4

Dye 0.01

Sodium citrate 0.1

Water balance

Total 100.0%

DETD

C.sub.8 glucose ester 15.0%

Amine oxide 3.0

Polymer-JR-400 (manufactured by 0.2

by Union Carbide Co.)

Behenyl trimethyl ammonium chloride 2.42

(Average molecular weight: 404)

**Propylene glycol** 5.0

Polyoxyethylene (average 40 mol) hardened 2.0

castor oil



N-lauryl dimethylamino acetic acid betaine	5.0
Dye, Perfume	appropriate amount
Ion-exchanged water	balance
Total	100.0%

AN 92:34283 USPATFULL  
 TI Nonionic surface active agent  
 IN Sekiguchi, Shizuo, Funabashi, Japan  
 Yasumasu, Tomoko, Funabashi, Japan  
 Miyake, Hiroshi, Narashino, Japan  
 Endo, Yoshihisa, Sakura, Japan  
 PA Lion Corporation, Tokyo, Japan (non-U.S. corporation)  
 PI US 5109127 19920428 <--  
 AI US 1990-608738 19901105 (7)  
 PRAI JP 1989-288154 19891106  
 DT Utility  
 EXNAM Primary Examiner: Griffin, Ronald W.; Assistant Examiner: Leary, Louise  
 LREP Birch, Stewart, Kolasch & Birch  
 CLMN Number of Claims: 7  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1639  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 22 OF 36 USPATFULL  
 PI US 4897339 19900130 <--  
 SUMM . . . reactions, for example, by a reaction of a primary amine or a secondary amine with an alkyl halide or an **alkyl sulfonate**, as described in J. Am. Chem. Soc., 68, 895 (1946); S. Caspe, J. Am. Chem. Soc., 54, 4457 (1932); E. . .  
 SUMM . . . esters (e.g., triphenyl phosphate, tricresyl phosphate, 2-ethylhexyldiphenyl phosphate, tricyclohexyl phosphate, tri-2-ethylhexyl phosphate, tridecyl phosphate, tributoxyethyl phosphate, trichloropropyl phosphate, di-2-ethylhexylphenylphosphate, etc.), **benzoic acid** esters (e.g., 2-ethylhexyl benzoate, dodecyl benzoate, 2-ethylhexyl-p-hydroxy benzoate, etc.), amides (e.g., diethyldecanamide, N-tetradecylpyrazolidone, etc.), alcohols or phenols (e.g., isostearyl alcohol, . . .

DETD  
 Color Developing Solution

Additive C	See Table 3
Additive D	See Table 3
Benzyl alcohol	See Table 3
<b>Diethylene glycol</b>	See Table 3
Sodium sulfite	0.2 g
Potassium carbonate	30 g
Nitrilotriacetic acid	1 g
Sodium chloride	1.5 g
Color developing agent (see Table 3)	

DETD TABLE 3

Color*		Frese Solution	
Benzyl Alcohol/		Aged Solution	
Experiment			
Developing			
<b>Diethylene Glycol</b>			
Additive C**			
Additive D			
Developing Grada- Grada-			
No.	Agent (ml/ml)	(0.04 mol)	(0.03 mol)

Solution  
Dmin  
tion  
Dmin tion

1 d 15/10. . .  
DETD

TABLE 4

Experi-		Fresh	Aged
Color Benzyl Alcohol/		Solution	Solution
ment			
Developing			
Diethylene Glycol			
Additive C			
Additive D			
No. Agent (ml/ml)	(0.04 mol)	Developing Grada-	Grada-
	(0.03 mol)		
	Solution		
	Dmin		
	tion		
	Dmin		
	tion		

1 d 15/10. . .  
DETD . . . carbonate  
30.0 g 30.0 g  
Sodium chloride 1.4 g 0.1 g  
4-Amino-3-methyl-N--ethyl-N--  
5.0 g 7.0 g  
[.beta.-(methanesulfonamido)-  
ethyl]-p-phenylenediamine  
sulfate  
Benzyl alcohol See Table 5  
See Table 5  
**Diethylene glycol** See Table 5  
See Table 5  
1,2-Dihydroxybenzene-  
300 mg 300 mg  
3,4,6-trisulfonic acid  
Water to make 1,000 ml 1,000 ml  
pH 10.10 10.50

Bleach-Fix Solution. . .  
DETD

TABLE 5

Benzyl Alcohol/	
<b>Diethylene Glycol</b>	
Tank Replenishing	Dmin after
Experiment	
Solution	
Solution	
Additive C*	
Additive D	
Developing	
Increase in Dmin	
1 Month at 80.degree.	
C.	

No. (ml). . .  
DETD

TABLE 6

Benzyl Alcohol/	
<b>Diethylene Glycol</b>	
Tank Replenishing	Dmin after

Experiment  
Solution  
Solution  
Additive C  
Additive D  
Developing  
Increase in Dmin  
1 Month at 80.degree.  
C.

No. (ml). . .

CLM What is claimed is:

. . . color developing agent comprises a p-phenylenediamine, or a salt thereof selected from a sulfate, a hydrochloride, a sulfite and a p-toluene sulfonate.

. . . color developing agent comprises a p-phenylenediamine, or a salt thereof selected from a sulfate, a hydrochloride, a sulfite and a p-toluene sulfonate.

AN 90:7617 . USPATFULL|

TI Method for processing a silver halide color photographic material and a color developing composition comprising hydroxylamines and stabilizing agents|

IN Andoh, Kazuto, Kanagawa, Japan  
Ishikawa, Takatoshi, Kanagawa, Japan  
Yagihara, Morio, Kanagawa, Japan

PA Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)

PI US 4897339 19900130 <--

AI US 1989-333816 19890406 (7)

RLI Continuation of Ser. No. US 1987-84941, filed on 10 Aug 1987, now abandoned

PRAI JP 1986-186560 19860808

JP 1986-207545 19860903

DT Utility|

EXNAM Primary Examiner: Michl, Paul R.; Assistant Examiner: Doody, Patrick|

LREP Sughrue, Mion, Zinn, Macpeak & Seas|

CLMN Number of Claims: 26|

ECL Exemplary Claim: 1|

DRWN No Drawings

LN.CNT 2577|

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 23 OF 36 USPATFULL

PI US 4880558 19891114 <--

SUMM . . . are of particular importance. In addition to these water-soluble nonionics, water-insoluble or substantially water-insoluble polyglycol ethers containing 1 to 4 **ethylene glycol** ether residues in the molecule can also be employed herein, particularly if they are used together with other

water-soluble, nonionic. . .

SUMM Other suitable nonionic surfactants are the water-soluble adducts - containing 20 to 250 **ethylene glycol** ether groups and 10 to 100 **propylene glycol** ether groups - of ethylene oxide with propylene oxide, alkylenediamine polypropylene glycol, and alkyl polypropylene glycols containing 1 to 10. . .

SUMM . . . added, such as water-soluble organic solvents, e.g. low molecular weight aliphatic C.sub.1 -C.sub.4 alcohols, and/or so-called hydrotropes of the lower **alkylarylsulfonate** type, for example toluene, xylene or **cumene sulfonate**. They may also be present in the form of their sodium and/or potassium and/or alkylamino salts. Other solubilizers that can. . . ethers of polyhydric alcohols or the partial ethers of polyhydric alcohols. Solubilizers such as these include, for example, di- or **triethylene glycol** polyglycerols, and the partial ethers of **ethylene glycol**, **propylene**

**glycol, butylene glycol** or glycerol with aliphatic monohydric alcohols containing 1 to 4 carbon atoms in the molecule.

SUMM . . . 2 to 6 halogen atoms and, optionally, lower alkyl or trifluoromethyl groups and containing a C.sub.1 -C.sub.10 alkylene bridge member; **hydroxybenzoic acids** or esters and amides thereof, more especially anilides, which can be substituted in the **benzoic acid** and/or aniline portion, more especially by 2 or 3 halogen atoms and/or trifluoromethyl groups; orthophenoxy phenols which may be substituted. . .

AN 89:92264 USPATFULL

TI Liquid cleaning preparation for hard surfaces

IN Jost, Frantisek, Duesseldorf, Germany, Federal Republic of

PA Wisotzki, Klaus-Dieter, Erkrath, Germany, Federal Republic of

PA Henkel Kommanditgesellschaft auf Aktien, Duesseldorf, Germany, Federal Republic of (non-U.S. corporation)

PI US 4880558 19891114 <--

AI US 1988-209154 19880620 (7)

PRAI DE 1987-3720262 19870619

DT Utility

EXNAM Primary Examiner: Lieberman, Paul; Assistant Examiner: McNally, John F.

LREP Szoke, Ernest G., Jaeschke, Wayne C., Millson, Jr., Henry E.

CLMN Number of Claims: 29

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 606

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 24 OF 36 USPATFULL

PI US 4771034 19880913 <--

SUMM . . . process for preparing an alkoxysalicylic acid derivative which comprises reacting a hydroxysalicylic acid derivative with an alkyl halide or an **alkyl sulfonate** in a polar solvent.

SUMM . . . as oxalic acid, maleic acid, tartaric acid, citric acid, succinic acid, stearic acid, etc.; and aromatic carboxylic acids, such as **benzoic acid**, p-t-butylbenzoic acid, phthalic acid, gallic acid, etc.

SUMM . . . to the present invention can be obtained by reacting a phenolated hydroxysalicylic acid derivative with an alkyl halide or an **alkyl sulfonate** in a polar solvent. Such process can be illustrated by the following reaction scheme: ##STR5## wherein R represents an alkyl. . .

SUMM The alkyl halide or **alkyl sulfonate** which can be used in the present invention is preferably used in an amount of from 0.7 to 1.5 mols, . . .

DETD . . . 2-anilino-3-chloro-6-zinc 4-.beta.-p-t-octylphenoxy-1-phenoxy-2-(4-ethyl-diethylaminofluoran and 2-anilino-3-methyl-6-ethoxysalicylate phenoxy)ethane

17 N--ethyl-N--isoamylaminofluoran

2-anilino-3-chloro-6-diethylaminofluoran

zinc 4-.beta.-N--myristoylamino-phenyl 1-hydroxy-2-ethoxysalicylate naphthoate

18 2-anilino-3-methyl-6-N--ethyl-N--isoamylamino

zinc 4-p-t-octylphenoxy-diethylene glycol

fluoran salicylate bis(4-methoxyphenyl) ether

CLM What is claimed is:

. . . a metal salt thereof is a compound produced by reacting a

hydroxysalicylic acid derivative with an alkyl halide or an **alkyl sulfonate** in a polar solvent.

5. A recording material as in claim 3, wherein said alkyl halide or **alkyl sulfonate** is an alkyl chloride, an alkyl bromide or an alkyl-p-toluene-sulfonate.

14. A recording material as in claim 10, wherein said salicylic acid derivative having an alkoxy group as a substituent. . . a metal salt thereof is a compound produced by reacting a hydroxysalicylic acid derivative with an alkyl halide or an **alkyl sulfonate** in a polar solvent.

an 16. A recording material as in claim 14, wherein said alkyl halide or **alkyl sulfonate** is an alkyl chloride, an alkyl bromide or alkyl-p-toluenesulfonate.

AN 88:59068 USPATFULL|  
TI Recording materials|  
IN Ikeda, Kensuke, Shizuoka, Japan  
Iwakura, Ken, Shizuoka, Japan  
Satomura, Masato, Shizuoka, Japan  
PA Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)  
PI US 4771034 19880913 <--  
AI US 1986-916430 19861007 (6)  
PRAI JP 1985-223340 19851007  
JP 1985-237060 19851023  
JP 1986-11242 19860122  
JP 1986-80641 19860408  
DT Utility|  
EXNAM Primary Examiner: Hess, Bruce H.|  
LREP Sughrue, Mion, Zinn, Macpeak and Seas|  
CLMN Number of Claims: 20|  
ECL Exemplary Claim: 1,9|  
DRWN No Drawings  
LN.CNT 1139|  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 25 OF 36 USPATFULL  
PI US 4554272 19851119 <--  
SUMM . . . of general formula X, thus obtained, are then converted to compounds of general formula XI using an alkyl halide or **alkyl sulfonate** with a suitable base in an appropriate solvent, at from -10.degree. C. to the boiling point of the solvent. Examples of suitable alkyl halides and **alkyl sulfonates** include iodoethane, 2-iodopropane, n-butyl-p-toluene sulfonate, and the like, while suitable bases include sodium hydride, potassium hydride, sodium methoxide, and the like. N,N-dimethylformamide, tetrahydrofuran, ethanol, methanol, . . .  
SUMM . . . pellets are resuspended in 80 volumes of binding assay buffer (10 mM N-2-hydroxyethyl-piperazine-N'-2-ethanesulfonic acid (HEPES), 5 mM MgCl.sub.2, 1 mM **ethylene glycol**-bis(.beta.-amino-ethyl-ether-N,N'-tetraacetic acid (EGTA), 0.4% BSA and 0.25 mg/ml bacitracin, pH 6.5).  
DETD Synthesis of 2(D)-[2'-(2-aminobenzoyl)aminobenzyl]amino-3-(1H-indol-3-yl)**propanoic acid**  
DETD . . . having formula VII of Scheme 2, 800 mg (3.4 mmole) of 2-(2-aminophenyl)-3,1-benzoxazin-4-one was reacted with 1.26 g (3.4 mmole) of 2-tert-butyloxycarbonylamino-3-(4-benzyloxyphenyl)**propanoic acid** to give 1.95 g of the above-titled compound after silica gel chromatography.  
AN 85:68321 USPATFULL  
TI Substituted quinazolino-1,4-benzodiazepin-6,9-diones and their preparation

IN Bock, Mark G., Hatfield,, PA, United States  
Freidinger, Roger M., Hatfield,, PA, United States  
PA Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)  
PI US 4554272 19851119 <--  
AI US 1985-695119 19850125 (6)  
DT Utility  
EXNAM Primary Examiner: Bond, Robert T.  
LREP Szura, Daniel T., Lopez, Gabriel, Pfeiffer, Hesna J.  
CLMN Number of Claims: 11  
ECL Exemplary Claim: 1,7  
DRWN No Drawings  
LN.CNT 809  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 26 OF 36 USPATFULL

PI US 4270002 19810526 <--

DETD As for the liquid carrier, there may be mentioned kerosene, alcohols (e.g. methanol, ethanol, **ethylene glycol**, benzyl alcohol), aromatic hydrocarbons (e.g. toluene, benzene, xylene, methylnaphthalene), halogenated hydrocarbons (e.g. chloroform, carbon tetrachloride, monochlorobenzene), ethers (e.g. dioxane, tetrahydrofuran), ketones (e.g. acetone, methylethylketone, cyclohexanone, isophorone), esters (e.g. ethyl acetate, buty acetate, **ethylene glycol** acetate), acid amides (e.g. dimethylformamide), nitriles (e.g. acetonitrile), ether alcohols (e.g. **ethylene glycol** ethyl ether), water and the like.

DETD . . . esters, sorbitan fatty acid esters, polyoxyethylene sorbitan fatty acid esters, oxyethylene-oxypropylene polymers, polyoxyethylene alkyl phosphates, fatty acid salts, alkyl sulfates, **alkyl sulfonates**, alkylaryl sulfonates, alkyl phosphates, polyoxyethylene alkyl sulfates, quaternary ammonium salts and the like. But, the surface active agent is not. . .

DETD . . . may be exemplified phenoxy series herbicides such as 2,4-dichlorophenoxyacetic acid, 2-methyl-4-chlorophenoxyacetic acid and 2-methyl-4-chlorophenoxybutyric acid (including esters and salts thereof); **benzoic acid** series herbicides such as 3,6-dichloro-2-methoxybenzoic acid and 2,5-dichloro-3-aminobenzoic acid;

diphenyl ether series herbicides such as 2,4-dichlorophenyl-4'-nitrophenyl ether, 2,4,6-trichlorophenyl-4'-nitrophenyl ether, 2-chloro-4-trifluoromethylphenyl-3'-ethoxy-4'-nitrophenyl. . . such as .alpha.,.alpha.,.alpha.-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine; aliphatic compounds series herbicides such trichloroacetic acid, 2,2-dichloropropionic acid and 2,2,3,3-tetrafluoropropionic acid; 5-tert-butyl-3-(2,4-dichloro-5-isopropoxyphenyl)-1,3,4-oxadiazolin-2-one; 3-isopropyl-1H-2,1,3-benzothiadiazin(4)-3H-one-2,2-dioxide; 2,6-dichlorobenzonitrile; .alpha.-(.beta.-naphthoxy)propionanilide; 4'-(phenylsulfonyl)-(1,1,1-trifluoromethylsulphono)-O-toluidide; 4-(2,4-dichlorobenzyl)-1,3-dimethylpyrazole-5-yl-p-**toluene-sulfonate**; N-p-chlorobenzoyloxyphenyl)-.DELTA.'-tetrahydrophthalimide and the like. But, the herbicides are not of course limited to these examples.

AN 81:29106 USPATFULL

TI N-(Phenylcycloalkyl)acetamide derivatives, and their production and use  
IN Kirino, Osamu, Hyogo, Japan  
Hashimoto, Shunichi, Sonehigashi, Japan  
Matsumoto, Hiroshi, Hyogo, Japan  
Oshio, Hiromichi, Osaka, Japan

PA Sumitomo Chemical Company, Limited, Osaka, Japan (non-U.S. corporation)

PI US 4270002 19810526 <--

AI US 1979-87642 19791023 (6)

PRAI JP 1978-138510 19781109

DT Utility

EXNAM Primary Examiner: Daus, Donald G.; Assistant Examiner: Eakin, M. C.

LREP Birch, Stewart, Kolasch & Birch

CLMN Number of Claims: 7

ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 638  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 27 OF 36 USPATFULL

PI US 4175062 19791120

<--

DETD bis-(O-carboxymethyl)-**ethylene glycol**

DETD bis-(O-carboxymethyl)-**diethylene glycol**

DETD . . . partial ethers of polyhydric and monohydric alcohols. These include di- or triethyleneglycol polyglycerines, as well as the partial ethers of **ethylene glycol, propylene glycol, butylene glycol** or glycerine with aliphatic monohydric alcohols containing 1 to 4 carbon atoms in the molecule.

DETD . . . 10 carbon atoms, especially derivatives substituted with 2 to 6

halogen atoms and, optionally, with lower alkyl or trifluoromethyl groups; **hydroxybenzoic acids** or their esters and amides, especially anilides, which can be substituted, especially by 2 or 3 halogen atoms and/or trifluoromethyl groups in the **benzoic acid** and/or aniline group; orthophenoxyphenols that can be substituted by 1 to 7, preferably by 2 to 5, halogen atoms and/or. .

DETD (a) addition compounds of 5 or 10 mols of ethylene oxide with aliphatic epoxides reacted with 1 mol of **ethylene glycol** or methanol and possessing a linear alkyl chain of 10 to 20 carbon atoms, and

DETD . . . the addition product of 10 mols of ethylene oxide to a non-terminal C.sub.15-18 epoxidized olefin reacted with one mol of **ethylene glycol** (Diol 15/18+11 EO) and the sodium salt of a linear C.sub.11-14 -alkylbenzene sulfonate (ABS) were employed in various ratios and. . .

DETD In Test #2, the ABS was replaced by the sodium salt of a linear C.sub.14

-C.sub.18 -**alkyl sulfonate** (AS) and the respective mixtures were tested for their cleaning effect and the results reported in Table 2.

DETD . . . mixtures of the addition product of 5 mols of ethylene oxide with internal C.sub.15/18 -epoxide reacted with 1 mol of **ethylene glycol** to give a mono-hydroxyethyl ether (Diol 15/18+6 EO), and the sodium salt of the liner C.sub.11/14 -alkylbenzene sulfonate (ABS) was. . .

DETD

% by Weight

Ingredients

8	Sodium dodecylbenzene sulfonate
1	Non-terminal C.sub.15/18 -alkanediol + 11 EO
4	Sodium tripolyphosphate
3	Sodium <b>cumene sulfonate</b>
0.2	Perfume oil
0.0015	Dyes
Remainder	Water

DETD . . . Weight

Ingredients

7.5	Sodium dodecylbenzene sulfonate
2.5	Non-terminal C.sub.11/14 -alkanediol + 10.5 EO
1.5	Potassium soap of soybean oil fatty acids
6.0	Sodium tripolyphosphate
5.0	<b>Ethylene glycol</b> monobutyl ether
4.0	Sodium <b>cumene sulfonate</b>
0.8	Pine oil
0.4	Perfume oil

0.003 Dyes  
Remainder Water

---

DETD

---

% By Weight

Ingredients

---

9.0	C.sub.11/14 -alkane sulfonate, Na-salt
1.0	Non-terminal C.sub.15/18 -alkanediol + 11 EO
3.0	Ethylene diaminetetraacetic acid, Na-salt
4.0	Sodium <b>cumene sulfonate</b>
5.0	Ethanol
0.3	Perfume oil
Remainder	Water

---

DETD

---

% By Weight

Ingredients

---

4.0	Sodium dodecylbenzene sulfonate
3.0	C.sub.11/14 -alkane sulfonate, Na-salt
1.5	Non-terminal C.sub.15/18 -alkanediol + 10.5 EO
5.0	Sodium <b>cumene sulfonate</b>
4.0	Sodium tripolyphosphate
4.0	<b>Ethylene glycol</b> monobutyl ether
2.0	O-phenylphenol
0.4	Perfume oil
0.001	Dyes
Remainder	Water

---

DETD

---

% By Weight

Ingredients

---

9.0	Sodium dodecylbenzene sulfonate
2.0	Non-terminal C.sub.15/18 -alkanediol monomethyl ether + 10 EO
3.0	Sodium tripolyphosphate
6.0	<b>Ethylene glycol</b> monobutylether
7.0	Formaldehyde/aminoethanol condensation product
5.0	Sodium <b>cumene sulfonate</b>
0.35	Perfume oil
0.002	Dyes
Remainder	Water

---

DETD

---

% By Weight

Ingredients

---

1.7	Sodium hydroxide, 50% solution
7.0	Dodecylbenzene sulfonic acid
3.0	Non-terminal C.sub.15/18 -alkanediol + 8 EO
4.5	Sodium tripolyphosphate
3.5	Sodium <b>cumene sulfonate</b>
4.0	<b>Ethylene glycol</b> monobutyl ether
0.25	Perfume oil
0.002	Dyes
Remainder	Water

---

DETD . . . to 11) EO

0 to 3 Alkali metal or ammonium salt of  
C.sub.12/18 -fatty acids

2.5 to 6 Sodium tripolyphosphate

0 to 6 **Ethylene glycol** monobutyl ether

Preferably



3 to 6)  
 0 to 2 Pine oil  
 (Preferably  
 0.2 to 2)  
 2 to 3 Alkali metal **cumene sulfonate**  
 0.2 to 0.6 Perfume oil  
 0.0005 to 0.005  
 Dyes  
 0 to 6 Ethanol  
 Remainder Water

CLM What is claimed is:  
 . . . of a C.sub.12 -C.sub.18 -fatty acid, 2.5% to 6% by weight of sodium tripolyphosphates, 0 to 6% by weight of **ethylene glycol** monobutyl ether, 0 to 2% by weight of pine oil, 2% to 3% by weight of alkali metal **cumene sulfonate**, 0.2% to 0.6% by weight of perfume oil, 0.0005% to 0.005% by weight of dyes, and 0 to 6% by. . .

AN 79:46357 USPATFULL|  
 TI Aqueous cleanser compositions|  
 IN Disch, Karlheinz, Haan, Germany, Federal Republic of  
 Kiewert, Eva, Dusseldorf, Germany, Federal Republic of  
 PA Henkel Kommanditgesellschaft auf Aktien (Henkel KgaA), Dusseldorf,  
 Germany, Federal Republic of (non-U.S. corporation)  
 PI US 4175062 19791120 <--  
 AI US 1978-883685 19780306 (5)  
 PRAI DE 1977-2709690 19770305  
 DT Utility|  
 EXNAM Primary Examiner: Weinblatt, Mayer|  
 LREP Hammond & Littell|  
 CLMN Number of Claims: 11|  
 ECL Exemplary Claim: 1|  
 DRWN No Drawings  
 LN.CNT 664|  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 28 OF 36 USPATFULL  
 PI US 4142999 19790306 <--  
 DETD . . . the derivatives of ethylene oxide are used in the invention.  
 The alkoxyated alkylamines having a total of 1 to 6 **ethylene glycol** ether groups have proved to be particularly successful.  
 DETD . . . hexavalent aliphatic alcohols (especially alkane polyols containing 2 to 6 carbon atoms), which include, for example, alkane diols such as **ethylene glycol**, 1,2-propylene glycol, 1,3-propylene glycol, 1,2-butylene glycol, 1,3-butylene glycol and 1,4-butylene glycol, dihydroxypentanes such as neopentyl glycol; glycerin; sugar alcohols such as dulcitol, mannitol, xylitol, and sorbitol, etc. Ethers or polyethers of these polyvalent alcohols useful in the invention are, for example, ethers of **ethylene glycol**, **diethylene glycol**, **triethylene glycol**, or polyethylene glycols and the polyethers of glycerin. Those polyethers are especially useful  
 which  
 are still liquid at room temperature.. . .  
 DETD . . . 3 to 30 glycol ether groups and 8 to 20 carbon atoms in the hydrocarbon radical. Those non-ionic surfactants containing **ethylene glycol** ether groups are particularly useful.  
 Among the latter polyglycol ether derivatives, those are particularly suitable in which the number of **ethylene glycol** ether groups is 5 to 15 and in which the hydrocarbon radicals are derived from straight-chain, primary alcohols having 12. . .  
 DETD . . . suitable are the water-soluble polyethylene oxide adducts to polypropylene glycol and ethylene diamine polypropylene glycol, which contain 20 to 250 **ethylene glycol** ether groups and 10 to 100 **propylene glycol** ether groups. Said

compounds normally contain 1 to 5 **ethylene glycol** units per **propylene glycol** unit. Ethoxylated and subsequently propoxylated fatty alcohols, secondary alcohols and alkyl phenols having 5 to 35 **ethylene glycol** or **propylene glycol** ether groups in each case, are also suitable for the same purpose. Also suitable are ethoxylated primary and secondary alcohols. . . .

DETD . . . are those of the sulfonate or sulfate type, such as alkylbenzene sulfonates, particularly n-dodecylbenzene sulfonate, as well as olefin sulfonates, **alkyl sulfonates**, .alpha.-sulfo fatty acid esters, primary and secondary alkyl sulfates, and the sulfates of ethoxylated or propoxylated higher molecular weight alcohols.

DETD . . . number of antimicrobial substances which may be used: 2,4,6-or 2,4,5-trichlorophenol, 2-hydroxydiphenyl, p-benzylphenol, p-phenylphenol, p-chloro-m-cresol, 1-hydroxypyridinethion-2 (Zn- or Na-salt), 2,2'-dihydroxydichlorodiphenylmethane, 4-**hydroxybenzoic acid**, bis-(2-hydroxy-3,5,6-trichlorophenyl)-methane, tribromosalicylanilide, sodium azide, S-ethylmercuric-4-carboxythiophenol, and 1,6-bis-(4-chlorophenylbiguanido)-hexane.

DETD Furthermore, solubilizing intermediaries (hydrotropic substances) can be present in the compositions of the invention, such as toluene- xylene- or **cumene sulfonate** or alkyl sulfates or alkane sulfonates having 6 to 8 carbon atoms in the hydrocarbon radical, or urea. Said sulfonates. . . .

CLM What is claimed is:

. . . of complex-forming builder substances, (i) 0 to 10% of solubilizing intermediaries selected from the group consisting of toluene-, xylene-, or **cumene sulfonate**, alkyl sulfates or alkane sulfonates having 6 to 8 carbon atoms in the hydrocarbon radical, and urea, (j) 0 to. . . .

. . . of complex-forming builder substances, (d) 0 to 10% of solubilizing intermediaries selected from the group consisting of toluene-, xylene-, or **cumene sulfonate**, alkyl sulfates or alkane sulfonates having 6 to 8 carbon atoms in the hydrocarbon radical, and urea, (e) 0 to. . . .

AN 79:11745 USPATFULL|

TI Stabilized liquid enzyme containing compositions|

IN Bloching, Helmut, Hilden, Germany, Federal Republic of Krings, Peter, Krefeld, Germany, Federal Republic of Pfeiffer, Hans, Haan, Germany, Federal Republic of

PA Henkel Kommanditgesellschaft auf Aktien, Dusseldorf-Holthausen, Germany,

Federal Republic of (non-U.S. corporation)

PI US 4142999 19790306 <--

AI US 1977-817140 19770720 (5)

PRAI DE 1976-2633601 19760727

DT Utility|

EXNAM Primary Examiner: Weinblatt, Mayer|

LREP Hammond & Littell|

CLMN Number of Claims: 14|

ECL Exemplary Claim: 1|

DRWN No Drawings

LN.CNT 689|

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 29 OF 36 USPATFULL

PI US 4061730 19771206 <--

SUMM X represents a member selected from the group consisting of halide, arylsulfonate, **alkyl sulfonate**, camphosulfonate and alkylsulfate.

SUMM . . . or an aqueous solution of a lower alkanol. The lower alkanol or

lower polyol can be, for instance, ethanol, isopropanol, **propylene glycol**, glycerol or sorbitol. While the compositions of the present invention are often colorless, it will be appreciated that they can. . .

DETD	3.5	g
Vaseline oil	6	g
Isopropyl myristate	3	g
Preservative		
("Nipa ester 82521)	0.3	g
(mixture of methyl, ethyl, butyl and benzyl ester of hydroxy <b>benzoic acid</b> )		
Glycerine	10	g
Perfume	0.3	g
4-[(2-oxo-3-bornylidene)methyl]-phenyl trimethylammonium methylsulfate	2.5	g
Water, q.s.p.	100	g
Dichlorodifluoromethane	15	g

DETD		
Cetyl stearyl alcohol	2	g
Glycerol monostearate	4	g
Cetyl alcohol	4	g
Vaseline oil	5	g
Butyl stearate	5	g
<b>Propylene glycol</b>	7	g
Silicone oil	0.125	g
Ethylene oxide polymer having a molecular weight of 100,000-1,000,000, sold under the tradename "POLYOX"	3.5	g
Preservative		
("Nipa ester 82521)	0.3	
DETD	0.2	g
Benzylidene-camphor	1	g
4-[(2-oxo-3-bornylidene)methyl]-phenyl trimethylammonium methylsulfate	2.5	g
Preservative		
"Nipa ester 82 521" (mixture of methyl, ethyl, butyl and benzyl - ester of p-hydroxy <b>benzoic acid</b> )		
Perfume	0.5	g
Water q.s.p.	100	g

CLM What is claimed is:

. . . selected from the group consisting of halogen, methyl and hydrogen; and X is selected from the group consisting of chloride, p-**toluene sulfonate**, methyl bromobenzene sulfonate, methane sulfonate, camphosulfonate, methylsulfate and ethylsulfate; wherein said anti-solar agent is present in amounts of about 0.05-10.

. . . selected from the group consisting of halogen methyl and hydrogen; and X is selected from the group consisting of chloride, p-**toluene sulfonate**, methyl bromobenzene sulfonate, methane sulfonate, camphosulfonate, methylsulfate and ethylsulfate; wherein said anti-solar agent is present in amounts of about 0.05-10.

10. The composition of claim 1, wherein said said lower polyol selected from the group consisting of **propylene glycol**, glycerol, and sorbitol.

AN 77:63982 USPATFULL|

TI Anti-solar agent and compositions containing the same|

IN Kalopissis, Gregoire, Paris, France  
Bouillon, Claude, Eaubonne, France  
Vayssie, Charles, Aulnay-sous-Bois, France  
PA Societe Anonyme dite: L'Oreal, Paris, France (non-U.S. corporation)  
PI US 4061730 19771206 <--  
AI US 1976-656573 19760209 (5)  
RLI Continuation of Ser. No. US 1973-397978, filed on 17 Sep 1973, now  
abandoned  
PRAI LU 1972-66156 19720925  
DT Utility|  
EXNAM Primary Examiner: Ore, Dale R.|  
LREP Cushman, Darby & Cushman|  
CLMN Number of Claims: 13|  
ECL Exemplary Claim: 1|  
DRWN No Drawings  
LN.CNT 596|

L6 ANSWER 30 OF 36 USPATFULL

PI US 3948960 19760406 <--

DETD . . . for example, any known organic hydrogen peroxide stabilizers  
which will not unduely contaminate the products such as cyanides,  
alpha-hydroxy-quinoline, acetanilide, **benzoic acid**,  
alphanbenzoyloxy-beta-dimethylamino-butyric acid, glycerine phenyl

ether,

thiourea, sodium salicylate, thymol, gum arabic, albumin, uric acid,  
guaiacol, phosphatides, acetyl glycol, monoacetyl glycol ether, . . .

DETD . . . like; the quaternary ammonium monomers, including  
methacryloxyethyltrimethylammonium methylsulfate and various  
quaternizing reaction products of quaternizing agents such as alkyl  
halides, **alkyl sulfonates**, alkyl phosphates and the  
like (e.g. methyl bromide and **toluene sulfonate**)  
with tertiary amine monomers such as .beta.-dimethylaminoethyl  
methacrylate, methyl .alpha.-diethyl aminoacrylate, methyl  
.alpha.-(N-methylanilino)-acrylate, methyl .alpha.-  
dibenzylaminoacrylate, methyl .alpha.-distearyl amino acrylate and the  
. . . N,N-diallyl methacrylamide, N,N-methylene bisacrylamide and the  
like; polyunsaturated ethers such as divinyl ether, diallyl ether,  
divinyl carbitol, divinyl ether of **diethylene glycol**  
and the like; polyunsaturated triazines, the diallyl cyanurate,  
N,N-diallyl melamine, 2,4-diallyloxy-6-amino-5-triazine, the di- and  
tri- vinyl cyanurates and derivatives of. . .

DETD . . . thereof. The especially suitable alcohols are methanol,  
ethanol, n-propanol, isopropanol, tert.-butanol and the less suitable  
alcohols are n-butanol, isobutanol, sec.-butanol, **ethylene**  
**glycol, propylene glycol**, glycerol,  
1-3-butanediol, furfuryl alcohol, tetrahydrofurfuryl alcohol and the  
like. The ketones which may be used include: acetone, methyl ethyl  
ketone, . . .

AN 76:18771 USPATFULL

TI Processes for preparing polymers

IN Burke, Jr., Oliver W., 1510 SW. 13th Court, Fort Lauderdale, FL, United  
States 33310

Kizer, Joseph Austin A., 211 SE. 6th Court, Pompano Beach, FL, United  
States 33061

Davis, Pauls, 30027 White St., Gibraltar, MI, United States 48173

PI US 3948960 19760406 <--

AI US 1974-436745 19740125 (5)

RLI Continuation-in-part of Ser. No. US 1973-356722, filed on 3 May 1973,  
now patented, Pat. No. US 3873584

DT Utility

EXNAM Primary Examiner: Douglas, Winston A.; Assistant Examiner: Niebling,  
John F.

LREP Hall & Houghton

CLMN Number of Claims: 15

ECL Exemplary Claim: 1

DRWN 10 Drawing Figure(s); 10 Drawing Page(s)

L6 ANSWER 31 OF 36 USPATFULL

PI US 3922161 19751125 <--

SUMM . . . sulfate, hydroxide; hydrogen sulfate; methyl sulfate; benzene sulfonate; C.sub.1 -C.sub.4 alkoxy benzene sulfonate; C.sub.1 -C.sub.3 alkyl benzene sulfonate, preferably a **toluene**

**sulfonate**, such as, **p-toluene sulfonate**;

nitrate; phosphate; carbonate; hydrogen carbonate; alkane sulfonate C.sub.1 -C.sub.4 ; perchlorate; Br.sub.3 .sup.- and I.sub.3 .sup.-.

SUMM . . . is 1 and X is selected from the group consisting of chloride, bromide, iodide, acetate, hydroxide, hydrogen sulfate, methyl sulfate, **p-toluene sulfonate**, perchlorate and **alkyl sulfonate** C.sub.1 -C.sub.4.

SUMM . . . alkyl acetates, alkyl sulfates, alkyl nitrates, alkyl phosphates, alkyl carbonates, alkyl perchlorates, alkyl hydrogen sulfates, alkyl methyl sulfates and alkyl **toluene sulfonates**; wherein, said alkyl groups are in the range of from C.sub.1 -C.sub.4 to provide the appropriate alkyl substituent in the.

SUMM . . . to 30% of a water-miscible solvent, such as water itself or another polar water-miscible solvent, such as 2-methoxy ethanol, methanol, **propylene glycol**, **diethylene glycol**, **diethylene glycol** monoethyl ether, formamide, and methylformamide. Application of the material is made by adding a predetermined quantity of the water-miscible concentrate. .

SUMM . . . well known in the chemical literature from readily available starting materials, such as the appropriately substituted acetophenone and appropriately substituted **benzoic acid** compounds or esters thereof.

SUMM Suitable **benzoic acid** derivatives useful in the preparation of the halo alkyl dibenzoyl methanes include, for example, those having the following substituents: p-trichloromethyl; . . .

DETD 68.4 Grams (0.335 mole) of the methyl ester of m-trifluoromethyl **benzoic acid** are combined with 36.0 grams (0.3 mole) of acetophenone in 200 ml. of dimethylsulfoxide. 8.04 Grams (0.335 mole) of sodium. . .

DETD Preparation of 1,2-Dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** ##SPC7##

DETD . . . the solution thus prepared dried by azeotropic distillation. The solution is cooled to 70.degree.C. and 318 grams (1.71 moles) of methyl-p-**toluene sulfonate** is added. The mixture is then refluxed for one hour and cooled causing the product to crystallize. When the mixture. . .

DETD . . . the general procedures of Examples 28, 29 or 30, substituting the appropriately substituted 1-alkyl-3,5-substituted diphenylpyrazole for 1-methyl-3,5-diphenylpyrazole and the appropriate alkyl-p-**toluene sulfonate**, alkyl halide or alkyl sulfate for the methyl-p-**toluene sulfonate**, methyl iodide or dimethyl sulfate, yields the corresponding 1,2-dialkyl substituted 3,5-diphenylpyrazolium salt. The reaction is graphically illustrated below: ##SPC8##

DETD . . . bromide solution of 1 N concentration until Br.sup.- ion is detected in the eluent. Then an aqueous solution of 1,2-dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** is passed down the column at a slow rate. The eluent is concentrated in vacuo, leaving the desired product as. . .

DETD . . . procedure of Example 56 above, substituting the appropriate sodium salt for the sodium bromide used therein and the appropriate pyrazolium p-**toluene sulfonate** for that used therein yields the compounds having the following formula and substituents set forth in the table below. ##SPC10##

DETD To a solution of 1,2-dimethyl-3,5-diphenylpyrazolium p-toluene sulfonate (10.0 g.) in 500 ml. of water is added a 20% aqueous solution of perchloric acid with vigorous stirring. The. . .  
DETD Following the general procedure of Example 63, substituting the appropriate pyrazolium p-toluene sulfonate for that used therein results in the formation of the perchlorates set forth in the table below. ##SPC11##  
DETD . . . or four-leaf stages of the wild oats, in sufficient amount to provide 1 or 2 lbs. per acre of 1,2-dimethyl-3,5-diphenylpyrazolium p-toluene sulfonate. 7 weeks after planting (or 3 and 5 weeks after treatment), the plots were examined and rated according to the. . .

DETD

Ingredient	%
1,2-dimethyl-3,5-diphenylpyrazolium p-toluene sulfonate	23.6
ethylene glycol monomethyl ether	76.4
Total	100.0

CLM What is claimed is:  
. . . is 1 and X is selected from the group consisting of chloride, bromide, iodide, acetate, hydroxide, hydrogen sulfate, methyl sulfate, p-toluene sulfonate, perchlorate and alkyl sulfonate C.sub.1 -C.sub.4.

AN 75:64020 USPATFULL|  
TI Novel herbicidal compositions|  
IN Walworth, Bryant Leonidas, Pennington, NJ, United States  
Klingsberg, Erwin, Mountain Side, NJ, United States  
PA American Cyanamid Company, Stamford, CT, United States (U.S. corporation)  
PI US 3922161 19751125 <--  
AI US 1974-458367 19740405 (5)  
RLI Division of Ser. No. US 1972-307672, filed on 17 Nov 1972, now Defensive

Publication No. which is a continuation-in-part of Ser. No. US 1972-271424, filed on 13 Jul 1972, now abandoned which is a continuation-in-part of Ser. No. US 1971-209448, filed on 17 Dec 1971, now abandoned

DT Utility|  
EXNAM Primary Examiner: Gotts, Lewis; Assistant Examiner: Mills, Catherine L.|  
LREP Raymond, Robert P.|  
CLMN Number of Claims: 18|  
ECL Exemplary Claim: 1|  
DRWN No Drawings  
LN.CNT 865|

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 32 OF 36 USPATFULL

PI US 3882142 19750506 <--

SUMM . . . sulfate, hydroxide; hydrogen sulfate; methyl sulfate; benzene sulfonate; C.sub.1 -C.sub.4 alkoxy benzene sulfonate; C.sub.1 -C.sub.3 alkyl benzene sulfonate, preferably a toluene sulfonate, such as, p-toluene sulfonate;

nitrate; phosphate; carbonate; hydrogen carbonate; alkane sulfonate C.sub.1 -C.sub.4 ; perchlorate; Br.sub.3 .sup.- and I.sub.3 .sup.-.  
SUMM . . . is 1 and X is selected from the group consisting of chloride, bromide, iodide, acetate, hydroxide, hydrogen sulfate, methyl sulfate, p-toluene sulfonate, perchlorate and alkyl sulfonate C.sub.1 -C.sub.4.

SUMM . . . alkyl acetates, alkyl sulfates, alkyl nitrates, alkyl phosphates, alkyl carbonates, alkyl perchlorates, alkyl hydrogen

sulfates, alkyl methyl sulfates and alkyl **toluene sulfonates**; wherein, said alkyl groups are in the range of from C.sub.1 -C.sub.4 to provide the appropriate alkyl substituent in the.

SUMM . . . 30 percent of a water-miscible solvent, such as water itself or another polar water-miscible solvent, such as 2-methoxy ethanol, methanol, **propylene glycol, diethylene glycol, diethylene glycol** monoethyl ether, formamide, and methylformamide. Application of the material is made by adding a predetermined quantity of the water-miscible concentrate. .

SUMM . . . well known in the chemical literature from readily available starting materials, such as the appropriately substituted acetophenone and appropriately substituted **benzoic acid** compounds or esters thereof.

SUMM Suitable **benzoic acid** derivatives useful in the preparation of the halo alkyl dibenzoyl methanes include, for example, those having the following substituents: p-trichloromethyl; . . .

DETD 68.4 Grams (0.335 mole) of the methyl ester of m-trifluoromethyl **benzoic acid** are combined with 36.0 grams (0.3 mole) of acetophenone in 200 ml. of dimethylsulfoxide. 8.04 Grams (0.335 mole)

of sodium. . . .  
DETD Preparation of 1,2-Dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** ##SPC7##

DETD . . . the solution thus prepared dried by azeotropic distillation. The solution is cooled to 70.degree.C. and 318 grams (1.71 moles) of methyl-p-**toluene sulfonate** is added. The mixture is then refluxed for 1 hour and cooled causing the product to crystallize. When the mixture. . . .

DETD . . . the general procedures of Examples 28, 29 or 30, substituting the appropriately substituted 1-alkyl-3,5-substituted diphenylpyrazole for 1-methyl-3,5-diphenylpyrazole and the appropriate alkyl-p-**toluene sulfonate**, alkyl halide or alkyl sulfate for the methyl-p-**toluene sulfonate**, methyl iodide or dimethyl sulfate, yields the corresponding 1,2-dialkyl substituted 3,5-diphenylpyrazolium salt. The reaction is graphically illustrated below: ##SPC8##

DETD . . . bromide solution of 1 N concentration until Br.sup.- ion is detected in the eluent. Then an aqueous solution of 1,2-dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** is passed down the column at a slow rate. The eluent is concentrated in vacuo, leaving the desired product as. . . .

DETD . . . procedure of Example 56 above, substituting the appropriate sodium salt for the sodium bromide used therein and the appropriate pyrazolium p-**toluene sulfonate** for that used therein yields the compounds having the following formula and substituents set forth in the table below. ##SPC10##

DETD To a solution of 1,2-dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** (10.0 g.) in 500 ml. of water is added a 20 percent aqueous solution of perchloric acid with vigorous stirring. . . .

DETD Following the general procedure of Example 63, substituting the appropriate pyrazolium p-**toluene sulfonate** for that used therein results in the formation of the perchlorates set forth in the table below. ##SPC11##

DETD . . . or four-leaf stages of the wild oats, in sufficient amount to provide 1 or 2 lbs. per acre of 1,2-dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate**. Seven weeks after planting (or 3 and 5 weeks after treatment), the plots were examined and rated according to the. . . .

DETD  
Ingredient %  
1,2-Dimethyl-3,5-diphenyl-  
pyrazolium p-**toluene**

sulfonate	23.6
ethylene glycol mono-	
methyl ether	76.4
Total	100.0

AN 75:23851 USPATFULL  
 TI 1,2-Dialkyl-3,5-diphenyl pyrazolium salts  
 IN Walworth, Bryant Leonidas, Pennington, NJ, United States  
 Klingsberg, Erwin, Mountain Side, NJ, United States  
 PA American Cyanamid Company, Stamford, CT, United States (U.S. corporation)  
 PI US 3882142 19750506 <--  
 AI US 1972-307672 19721117 (5)  
 RLI Continuation-in-part of Ser. No. US 1972-271424, filed on 13 Jul 1972, now abandoned which is a continuation-in-part of Ser. No. US 1971-209448, filed on 17 Dec 1971, now abandoned  
 DT Utility  
 EXNAM Primary Examiner: Trousof, Natalie  
 LREP Raymond, Robert P.  
 CLMN Number of Claims: 7  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 834  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 33 OF 36 USPATFULL  
 PI US 3873584 19750325 <--  
 SUMM . . . for example, any known organic hydrogen peroxide stabilizers which will not unduely contaminate the products such as cyanides, alphahydroxy-quinoline, acetanilide, **benzoic acid**, alphabenzoyloxy-beta-dimethylamino-butyric acid, glycerine phenyl ether,  
 thiourea, sodium salicylate, thymol, gum arabic, albumin, uric acid, guaiacol, phosphatides, acetyl glycol, monoacetyl glycol ether, . . .  
 SUMM . . . like; the quaternary ammonium monomers, including methacryloxy-ethyltrimethylammonium methylsulfate and various quaternizing reaction products of quaternizing agents such as alkyl halides, **alkyl sulfonates**, alkyl phosphates and the like (e.g., methyl bromide and **toluene sulfonate**) with tertiary amine monomers such as .beta.-dimethylaminoethyl mathacrylate, methyl .alpha.-diethyl aminoacrylate, methyl .alpha.-(N-methylanilino)-acrylate, methyl .alpha.-dibenzylaminoacrylate, methyl .alpha.-distearyl amino acrylate and the . . . N,N-diallyl methacrylamide, N,N-methylene bisacrylamide and the like; polyunsaturated ethers such as divinyl ether, diallyl ether, divinyl carbitol, divinyl ether of **diethylene glycol** and the like; polyunsaturated triazines, the diallyl cyanurate, N,N-diallyl melamine, 2,4-diallyloxy-6-amino-5-triazine, the di- and tri- vinyl cyanurates and derivatives of. . .  
 SUMM . . . thereof. The especially suitable alcohols are methanol, ethanol, n-propanol, isopropanol, tert.-butanol and the less suitable alcohols are n-butanol, isobutanol, sec.-butanol, **ethylene glycol**, **propylene glycol**, glycerol, 1-3-butanediol, furfuryl alcohol, tetrahydrofurfuryl alcohol and the like. The ketones which may be used include: acetone, methyl ethyl ketone, . . .  
 AN 75:15303 USPATFULL  
 TI HYDROXYL CONTAINING UNSATURATED DRYING OIL POLYMERS AND PROCESSES FOR PREPARING POLYMERS  
 IN Burke, Jr., Oliver W., 1510 S.W. 13th Ct., Ft. Lauderdale, FL, United States 33061  
 Kizer, Joseph Austin A., Pompano Beach, FL, United States  
 Davis, Pauls, Gibralter, MI, United States  
 PA SAID Burke, by said Kizer and Davis, United States (U.S. individual)  
 PI US 3873584 19750325 <--  
 AI US 1973-356722 19730503 (5)



RLI Continuation-in-part of Ser. No. US 1972-318910, filed on 27 Dec 1972, now abandoned which is a continuation-in-part of Ser. No. US 1969-860163, filed on 9 Sep 1969, now abandoned which is a continuation-in-part of Ser. No. US 1966-594947, filed on 16 Nov 1966, now abandoned which is a continuation-in-part of Ser. No. US 1965-447530, filed on 12 Apr 1965, now abandoned which is a continuation-in-part of Ser. No. US 1959-863218, filed on 31 Dec 1959, now abandoned  
DT Utility  
EXNAM Primary Examiner: Daus, Donald G.; Assistant Examiner: Rivers, Diana G.  
LREP Hall & Houghton  
CLMN Number of Claims: 12  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1092  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 34 OF 36 USPATFULL

PI US 3843685 19741022

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SUMM . . . the hydroxy group is suitable. Exemplary acids useful for this purpose are lower alkanolic acids, e.g., acetic acid, caproic acid, **benzoic acid**, phosphoric acid and lower alkane dicarboxylic acids, e.g. succinic acid. Also, protection for the 16.alpha.-hydroxy, 17.alpha.-hydroxy, or 21-hydroxy substituent can.

SUMM . . . prior to oxidation. Suitable ester forming moieties are, for example, carboxylic acids, e.g., lower alkanolic acid such as acetic acid, **benzoic acid**, and the like; and hydrolysis of the reaction products obtained by reacting such 1-Q-butan-3-ol or 1-Q-pentan-3-ol esters is suitably conducted.

SUMM . . . is suitably effected by esterification, preferably with a carboxylic acid, for example, a lower alkanolic acid such as acetic acid,

**benzoic acid**, or the like. Conversion of the so-obtained 11-esterified hydroxy compound then yields an 11-(esterified hydroxy)-desA-androst-9-en-5-one (i.e., a compound of formula. . .

DETD A solution of 238 mg. of 17.beta.-hydroxy-9.beta., 10.beta.-desA-androstan-5-one, 1 ml. of **ethylene glycol** and catalytic amount of p-toluene sulfonic acid in 100 ml. of anhydrous benzene was slowly distilled until no more water. . .

DETD 3.beta.-Hydroxy-16.alpha.-methyl-pregn-5-en-20-one ethylene ketal is prepared by ketalization of

3.beta.-hydroxy-16.alpha.-methyl-pregn-5-en-20-one in benzene solution with **ethylene glycol** using p-toluenesulfonic acid as catalyst. Pyridine-chromic acid oxidation of the so-obtained

3.beta.-hydroxy-16.alpha.-methyl-pregn-5-en-20-one ethylene ketal yields 16.alpha.-methyl-20-ethylenedioxy-pregn-4-en-3-one.

16.alpha.-methyl-20-ethylenedioxy-5-oxo-3,5-seco-A-norpregnane-3-oic acid is prepared. . .

CLM What is claimed is:

. . . the corresponding 11-hydroxy-desA-androstan-5-one; esterifying said 11-hydroxy-desA-androstan-5-one to form a leaving group in the 11-position selected from the group consisting of **toluene sulfonate**, lower **alkyl sulfonate** and nitrophenyl sulfonate; and eliminating said leaving group

. . . the corresponding 11-hydroxy-desA-pregnan-5-one; esterifying said 11-hydroxy-desA-pregnan-5-one to form a leaving group in the 11-position

selected from the group consisting of **toluene sulfonate**, lower **alkyl sulfonate** and nitrophenyl sulfonate; and eliminating said leaving group

. . . the corresponding 11-hydroxy-desA-androstan-5-one; esterifying said 11-hydroxy-desA-androstan-5-one to form a leaving group in the 11-position selected from the group consisting of **toluene sulfonate**, lower **alkyl sulfonate**, and nitrophenyl sulfonate; and eliminating said leaving group from said 11-position to form said

. . . the corresponding 11-hydroxy-desA-pregnan-5-one; esterifying said 11-hydroxy-desA-pregnan-5-one to form a leaving group in the 11-position selected from the group consisting of **toluene sulfonate**, lower **alkyl sulfonate** and nitrophenyl sulfonate; and eliminating said leaving group from said 11-position to form said desA-pregn-9-en-5-one.

AN 74:49106 USPATFULL|  
TI PROCESSES FOR THE PREPARATION OF DESA-5-KETO STEROIDS|  
IN Uskokovic, Milan Radoje, Upper Montclair, NJ, United States  
Williams, Thomas Henry, Passaic, NJ, United States  
PA Hoffmann-La Roche Inc., Nutley, NJ, United States (U.S. corporation)  
PI US 3843685 19741022 <--  
AI US 1968-737278 19680617 (4)  
RLI Division of Ser. No. US 1965-499094, filed on 20 Oct 1965, now patented,  
Pat. No. US 3574761 Continuation-in-part of Ser. No. US 1964-400206, filed on 29 Sep 1964, now patented, Pat. No. US 3412107  
DT Utility|  
EXNAM Primary Examiner: Zitver, Leon; Assistant Examiner: Schwartz, Gerald A.|  
LREP Welt, Samuel L., Saxe, Jon S., Epstein, William H.|  
CLMN Number of Claims: 6|  
ECL Exemplary Claim: 1|  
DRWN No Drawings  
LN.CNT 3252|  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 35 OF 36 USPATFULL  
PI US 3762859 19731002 <--  
SUMM . . . in a straight or branched chain, e.g., the sodium, potassium and ammonium salts of higher alkyl benzene sulfonates, higher alkyl **toluene sulfonates**, higher alkyl phenol sulfonates, and higher naphthalene sulfonates. A preferred sulfonate is linear alkyl benzene sulfonate having a high content. . .  
SUMM Paraffin sulfonates useful in the present invention are usually mixed secondary **alkyl sulfonates** having from 10 to 20 carbon atoms per molecule, preferably they will have at least 80 percent, usually at least. . . reaction is a secondary sulfonic acid which is then neutralized with a suitable base to provide the water soluble secondary **alkyl sulfonate** for use in the present invention. Similar useful secondary **alkyl sulfonate** may be obtained by other methods, e.g., by the sulfochlorination method in which chlorine and sulfur dioxide are reacted with paraffins in the presence of actinic light, the resulting sulfonyl chlorides being hydrolyzed and neutralized to form the secondary **alkyl sulfonates**. These compounds are particularly useful in heavy duty liquid detergent formulations containing the bluing agents of the invention.  
SUMM . . . The compounds are formed by condensing ethylene oxide with a hydrophobic base formed by the condensation of propylene oxide with **propylene glycol**. The molecular weight of the hydrophobic portion of the molecule is of the order of 950 to 4,000 preferably 1,200. . .  
SUMM . . . Preferred detergents of this type are sodium N-lauryl beta-aminopropionate, disodium N-lauryl iminodipropionate, and the disodium salt of 2-lauryl-cycloimidium-1-hydroxyl, 1-ethoxyethanoic

acid, 1-ethanoic acid.  
AN 73:45274 USPATFULL  
TI ENHANCING THE APPARENT WHITENESS OF FABRICS BY APPLYING AN EFFECTIVE  
AMOUNT OF AN ALKALI AND HEAT STABLE WATER-SOLUBLE DISAZO BLUE DYESTUFF,  
FABRIC SOFTENING AND DETERGENT COMPOSITION THEREFOR  
IN Wixon, Harold Eugene, New Brunswick, NJ, United States  
Trimmer, Robert Henry, Edison, NJ, United States  
PA Colgate-Palmolive Company, New York, NY, United States (U.S.  
corporation)  
PI US 3762859 19731002 <--  
AI US 1971-124510 19710315 (5)  
DT Utility  
EXNAM Primary Examiner: Ansher, Harold; Assistant Examiner: Ives, Patricia C.  
LREP Sylvester; Herbert S., Grill; Murray M., Blumenkopf; Norman, Corum;  
Thomas J., Miller; Richard N., Stone; Robert L., Koch; Kenneth A.  
CLMN Number of Claims: 17  
DRWN No Drawings  
LN.CNT 905  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 36 OF 36 USPATFULL

PI US 3761503 19730925 <--  
DETD . . . the hydroxy group is suitable. Exemplary acids useful for this  
purpose are lower alkanolic acids, e.g., acetic acid, caproic acid,  
**benzoic acid**, phosphoric acid and lower alkane  
dicarboxylic acids, e.g., succinic acid. Also, protection for the  
16.alpha.-hydroxy, 17.alpha.-hydroxy, or 21-hydroxy substituent can. .  
DETD . . . prior to oxidation. Suitable ester forming moieties are, for  
example, carboxylic acids, e.g., lower alkanolic acid such as acetic  
acid, **benzoic acid**, and the like; and hydrolysis of  
the reaction products obtained by reacting such 1-Q-butan-3-ol or  
1-Q-pentan-3-ol esters is suitably conducted. . .  
DETD . . . group consisting of hydrogen, lower alkyl, lower alkylthio,  
lower alkanoylthio and halogen; LO is selected from the group  
consisting  
of **toluene sulfonate**, lower alkyl  
**sulfonate**, and nitrophenyl sulfonate; R.sub.7 is individually  
hydroxy, loweralkanoyloxy, carboxyloweralkanoyloxy, benzoyloxy,  
tetrahydropyranyloxy, benzyloxy, benzhydryloxy, trityloxy, allyloxy or  
lower alkoxy lower alkoxy;. . .  
DETD . . . is suitably effected by esterification, preferably with a  
carboxylic acid, for example, a lower alkanolic acid such as acetic  
acid,  
**benzoic acid**, or the like. Conversion of the  
so-obtained 11-esterified hydroxy compound then yields an  
11-(esterified  
hydroxy)-desA-androst-9-en-5-one (i.e., a compound of formula. . .  
DETD A solution of 238 mg. of 17.beta.-hydroxy-9.beta. ,10.beta.-desA-  
androstan-5-one, 1 ml. of **ethylene glycol** and  
catalytic amount of p-toluene sulfonic acid in 100 ml. of anhydrous  
benzene was slowly distilled until no more water. . .  
DETD 3.beta.-Hydroxy-16.alpha.-methyl-pregn-5-en-20-one ethylene ketal is  
prepared by ketalization of  
3.beta.-hydroxy-16.alpha.-methyl-pregn-5-en-  
20-one in benzene solution with **ethylene glycol**  
using p-toluenesulfonic acid as catalyst. Pyridine-chromic acid  
oxidation of the so-obtained  
3.beta.-hydroxy-16.alpha.-methyl-pregn-5-en-  
20-one ethylene ketal yields 16.alpha.-methyl-20-ethylenedioxy-pregn-4-  
en-3-one.  
16.alpha.-methyl-20-ethylenedioxy-5-oxo-3,5-seco-A-norpregnane-  
3-oic acid is prepared. . .

AN 73:43922 USPATFULL  
TI SUBSTITUTED-3,5-SECO-A-NOR-PREGNAN-3-OIC-ACIDS  
IN Uskokovic, Milan Radoje, Seven Windermere Rd., Upper Montclair, NJ,

United States  
PI US 3761503 19730925 <--  
AI US 1968-736568 19680613 (4)  
RLI Division of Ser. No. US 1965-499094, filed on 20 Oct 1965, now  
patented,  
Pat. No. US 3574761 which is a continuation-in-part of Ser. No. US  
1964-400206, filed on 29 Sep 1964, now patented, Pat. No. US 3412107  
DT Utility  
EXNAM Primary Examiner: Mars, Howard T.; Assistant Examiner: DeCrescente, Leo  
B  
LREP Welt; Samuel L., Saxe; Jon S., Leon; Bernard S., Epstein; William H.  
CLMN Number of Claims: 5  
DRWN No Drawings  
LN.CNT 3088  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> dup rem

ENTER L# LIST OR (END):16

PROCESSING COMPLETED FOR L6

L7 36 DUP REM L6 (0 DUPLICATES REMOVED)

=> s 16 and plant

L8 3 L6 AND PLANT

=> d

L8 ANSWER 1 OF 3 USPATFULL  
AN 81:29106 USPATFULL  
TI N-(Phenylcycloalkyl)acetamide derivatives, and their production and use  
IN Kirino, Osamu, Hyogo, Japan  
Hashimoto, Shunichi, Sonehigashi, Japan  
Matsumoto, Hiroshi, Hyogo, Japan  
Oshio, Hiromichi, Osaka, Japan  
PA Sumitomo Chemical Company, Limited, Osaka, Japan (non-U.S. corporation)  
PI US 4270002 19810526 <--  
AI US 1979-87642 19791023 (6)  
PRAI JP 1978-138510 19781109  
DT Utility  
LN.CNT 638  
INCL INCLM: 564/221.000  
INCLS: 071/118.000; 564/141.000; 564/211.000; 564/223.000  
NCL NCLM: 564/221.000  
NCLS: 504/339.000; 504/340.000; 564/141.000; 564/211.000; 564/223.000  
IC [3]  
ICM: C07C103-34  
ICS: C07C103-375; A01N037-18  
EXF 260/562A; 260/562B; 260/562R; 564/211; 564/221; 564/223  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d kwic

L8 ANSWER 1 OF 3 USPATFULL  
PI US 4270002 19810526 <--  
SUMM Advantageously, the N-(phenylcycloalkyl)acetamide derivatives (I) do  
not  
produce any injury on various crop **plants** such as rice,  
soybean, cotton, peanut, sunflower, rape and potato and numerous  
vegetables such as cabbage, tomato and carrot.  
SUMM . . . (I) exert an extremely high herbicidal effect on annual and

perennial weeds in paddy fields without any phytotoxicity on rice plants. Further, the N-(phenylcycloalkyl)acetamide derivatives (I) are quite characteristic in being highly effective for selectively controlling or eradicating Gramineae weeds and perennial Cyperaceae weeds in the cultivation of the crop **plant** and the vegetables.

DETD As for the liquid carrier, there may be mentioned kerosene, alcohols (e.g. methanol, ethanol, **ethylene glycol**, benzyl alcohol), aromatic hydrocarbons (e.g. toluene, benzene, xylene, methylnaphthalene), halogenated hydrocarbons (e.g. chloroform, carbon tetrachloride, monochlorobenzene), ethers (e.g. dioxane, tetrahydrofuran), ketones (e.g. acetone, methylethylketone, cyclohexanone, isophorone), esters (e.g. ethyl acetate, buty acetate, **ethylene glycol** acetate), acid amides (e.g. dimethylformamide), nitriles (e.g. acetonitrile), ether alcohols (e.g. **ethylene glycol** ethyl ether), water and the like.

DETD . . . esters, sorbitan fatty acid esters, polyoxyethylene sorbitan fatty acid esters, oxyethylene-oxypropylene polymers, polyoxyethylene alkyl phosphates, fatty acid salts, alkyl sulfates, **alkyl sulfonates**, alkylaryl sulfonates, alkyl phosphates, polyoxyethylene alkyl sulfates, quaternary ammonium salts and the like. But, the surface active agent is not. . .

DETD . . . may be exemplified phenoxy series herbicides such as 2,4-dichlorophenoxyacetic acid, 2-methyl-4-chlorophenoxyacetic acid and 2-methyl-4-chlorophenoxybutyric acid (including esters and salts thereof); **benzoic acid** series herbicides such as 3,6-dichloro-2-methoxybenzoic acid and 2,5-dichloro-3-aminobenzoic acid;

diphenyl ether series herbicides such as 2,4-dichlorophenyl-4'-nitrophenyl ether, 2,4,6-trichlorophenyl-4'-nitrophenyl ether, 2-chloro-4-trifluoromethylphenyl-3'-ethoxy-4'-nitrophenyl. . . such as .alpha.,.alpha.,.alpha.-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine; aliphatic compounds series herbicides such trichloroacetic acid, 2,2-dichloropropionic acid and 2,2,3,3-tetrafluoropropionic acid; 5-tert-butyl-3-(2,4-dichloro-5-isopropoxyphenyl)-1,3,4-oxadiazolin-2-one; 3-isopropyl-1H-2,1,3-benzothiadiazin(4)-3H-one-2,2-dioxide; 2,6-dichlorobenzonitrile; .alpha.-(.beta.-naphthoxy)propionanilide; 4'-(phenylsulfonyl)-(1,1,1-trifluoromethylsulphono)-O-toluidide; 4-(2,4-dichlorobenzyl)-1,3-dimethylpyrazole-5-yl-p-toluene-**sulfonate**; N-p-chlorobenzoyloxyphenyl)-.DELTA.'-tetrahydrophthalimide and the like. But, the herbicides are not of course limited to these examples.

DETD The herbicides of the invention may be applied together with fungicides,

pyrethroid series insecticides, other insecticides, **plant** growth regulators, fertilizers, etc.

DETD . . . days after the application, the herbicidal activity and phytotoxicity of the test compound were checked on the transplanted and sowed **plants** and spontaneously germinated Monochoria vaginalis. The results are shown in Table 2.

DETD As to the evaluation of phytotoxicity, the three factors (i.e. height of **plant**, number of tillers and total weight (dry weight)) were each checked, and a ratio of the treated plot to the. . .

DETD . . . Scir- Slender

No.	ingre- dient g/are)	Barn- yard grass	choria- vagin- alis	pus Hota- rui	spi- ker rush	toxi- city Rice <b>plant</b>
1	40	5	4	5	5	0
	20	4	4	4	5	0
2	40	5	5	5	5	0

DETD . . . in Table 3. The herbicidal activity was evaluated in figures

ranging from 0 to 5. The phytotoxicity to the crop **plants** was also indicated on the same standard as that of the herbicidal activity.

=> d 2-3 kwic bib

L8 ANSWER 2 OF 3 USPATFULL

PI US 3922161 19751125

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SUMM More particularly, the herbicidal methods of the present invention relate to the control of undesirable **plant** species by applying to their foliage a herbicidally effective amount of a compound having the following formula: ##SPC1##

SUMM . . . sulfate, hydroxide; hydrogen sulfate; methyl sulfate; benzene sulfonate; C.sub.1 -C.sub.4 alkoxy benzene sulfonate; C.sub.1 -C.sub.3 alkyl benzene sulfonate, preferably a **toluene sulfonate**, such as, **p-toluene sulfonate**;

nitrate; phosphate; carbonate; hydrogen carbonate; alkane sulfonate C.sub.1 -C.sub.4 ; perchlorate; Br.sub.3 .sup.- and I.sub.3 .sup.-.

SUMM The **plants** which can be effectively controlled by application of one or more of the formula (I) pyrazolium salts include both broad leaf **plants** and annual grasses (monocotyledonous and dicotyledonous **plants**).

SUMM . . . is 1 and X is selected from the group consisting of chloride, bromide, iodide, acetate, hydroxide, hydrogen sulfate, methyl sulfate, **p-toluene sulfonate**, perchlorate and **alkyl sulfonate** C.sub.1 -C.sub.4.

SUMM . . . has one or two leaves. If spraying is delayed, such herbicides become ineffective. Others are only optimally employed with adult **plants** after tillering has occurred. In such cases the pest has already deprived the crop of nutrients, water and sunlight. Others, . . .

SUMM . . . as being highly selective on barley, combined with herbicidal effectiveness throughout the early and middle life of the wild oat **plant**, together with their favorable dermal toxicity which is greater than 5,000 mg./kg. in rabbits for 1,2-dimethyl-3,5-diphenylpyrazolium methyl sulfate, low eye. . . .

SUMM . . . alkyl acetates, alkyl sulfates, alkyl nitrates, alkyl phosphates, alkyl carbonates, alkyl perchlorates, alkyl hydrogen sulfates, alkyl methyl sulfates and alkyl **toluene sulfonates**; wherein, said alkyl groups are in the range of from C.sub.1 -C.sub.4 to provide the appropriate alkyl substituent in the.

SUMM In applying the formula (I) pyrazolium salts to the foliage of the undesirable **plant** species, the salts are preferably formulated as post-emergence herbicidal compositions by admixing a herbicidal adjuvant with a herbicidally effective amount. . . .

SUMM . . . to 30% of a water-miscible solvent, such as water itself or another polar water-miscible solvent, such as 2-methoxy ethanol, methanol, **propylene glycol**, **diethylene glycol**, **diethylene glycol** monoethyl ether, formamide, and methylformamide. Application of the material is made by adding a predetermined quantity of the water-miscible concentrate. . . .

SUMM . . . spray tank at the rate of 0.1% to 5% by volume to provide good wetting of the spray solution on **plant** foliage.

SUMM These compositions are effective for the postemergence control of undesirable **plants** when applied at a rate sufficient to provide 0.25-20 lbs./acre of active ingredient (i.e., cation. Application at rates of from. . . .

SUMM . . . well known in the chemical literature from readily available starting materials, such as the appropriately substituted acetophenone and appropriately substituted **benzoic acid** compounds or esters thereof.

SUMM Suitable **benzoic acid** derivatives useful in the

preparation of the halo alkyl dibenzoyl methanes include, for example, those having the following substituents: p-trichloromethyl;. . .

DETD 68.4 Grams (0.335 mole) of the methyl ester of m-trifluoromethyl **benzoic acid** are combined with 36.0 grams (0.3 mole) of acetophenone in 200 ml. of dimethylsulfoxide. 8.04 Grams (0.335 mole) of sodium. . .

DETD Preparation of 1,2-Dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** ##SPC7##

DETD . . . the solution thus prepared dried by azeotropic distillation. The solution is cooled to 70.degree.C. and 318 grams (1.71 moles) of methyl-p-**toluene sulfonate** is added. The mixture is then refluxed for one hour and cooled causing the product to crystallize. When the mixture. . .

DETD . . . the general procedures of Examples 28, 29 or 30, substituting the appropriately substituted 1-alkyl-3,5-substituted diphenylpyrazole for 1-methyl-3,5-diphenylpyrazole and the appropriate alkyl-p-**toluene sulfonate**, alkyl halide or alkyl sulfate for the methyl-p-**toluene sulfonate**, methyl iodide or dimethyl sulfate, yields the corresponding 1,2-dialkyl substituted 3,5-diphenylpyrazolium salt. The reaction is graphically illustrated below: ##SPC8##

DETD . . . bromide solution of 1 N concentration until Br.sup.- ion is detected in the eluent. Then an aqueous solution of 1,2-dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** is passed down the column at a slow rate. The eluent is concentrated in vacuo, leaving the desired product as. . .

DETD . . . procedure of Example 56 above, substituting the appropriate sodium salt for the sodium bromide used therein and the appropriate pyrazolium p-**toluene sulfonate** for that used therein yields the compounds having the following formula and substituents set forth in the table below. ##SPC10##

DETD To a solution of 1,2-dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** (10.0 g.) in 500 ml. of water is added a 20% aqueous solution of perchloric acid with vigorous stirring. The. . .

DETD Following the general procedure of Example 63, substituting the appropriate pyrazolium p-**toluene sulfonate** for that used therein results in the formation of the perchlorates set forth in the table below. ##SPC11##

DETD . . . of the compounds of the present invention is demonstrated by the following test, wherein a variety of monocotyledonous and dicotyledonous **plants** are treated with test compounds dispersed in aqueous acetone mixtures. In the tests, seedling **plants** are grown in jiffy flats for about 2 weeks. The test compounds are dispersed in 50/50 acetone/water mixtures containing 0.5%. . .

. . . to provide the equivalent of about 0.5 lb. to 9 lbs. per acre of active compound when applied to the **plants** through a spray nozzle operating at 40 psi. for a predetermined time. After spraying, the **plants** are placed on greenhouse benches and are cared for in the usual manner, commensurate with conventional greenhouse practices. Two weeks after treatment, the seedling **plants** are examined and rated according to the rating system provided below. The data obtained are reported in Table VI where. . .

DETD . . . a 5 on the rating

scale.

.sup.1 Based on visual determination of stand, size, vigor, chlorosis, growth malformation and over-all **plant** appearance.

DETD

**Plant** Abbreviation:

LA - Lambsquarters  
(Chenopodium album)  
MU - Mustard  
(Brassica kaber)  
PI - Pigweed

(Amaranthus retroflexus)  
BA - Barnyard grass

DETD . . . quantity to provide the equivalent of 0.5 lb. and 1.0 lb. per acre of test compound when applied to the **plants** through a spray nozzle operating at 40 psi. for a predetermined time.

Applications

are made to the growing **plants** when the **plants** reach the one-, two-, three-, or four-leaf stage. Three weeks after treatment, the foliage of the treated and non-treated control **plants** are cut, gathered, and weighed. The results obtained, which are set forth in

Table VII below, are expressed as percent inhibition of fresh weight of treated **plant** foliage as compared with the untreated control treatment. ##SPC15##

DETD . . . or four-leaf stages of the wild oats, in sufficient amount to provide 1 or 2 lbs. per acre of 1,2-dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate**. 7 weeks after planting (or 3 and 5 weeks after treatment), the plots were examined and rated according to the. . .

DETD

Ingredient	%
1,2-dimethyl-3,5-diphenylpyrazolium p- <b>toluene sulfonate</b>	23.6
<b>ethylene glycol</b> mono-methyl ether	76.4
Total	100.0

CLM What is claimed is:

1. A method for the control of undesirable **plant** species comprising applying to the foliage of said undesirable **plants** a herbicidally effective compound having the formula: ##SPC17## wherein R.sub.1 and R.sub.2 each represent lower alkyl groups having one to . . .

. . . is 1 and X is selected from the group consisting of chloride, bromide, iodide, acetate, hydroxide, hydrogen sulfate, methyl sulfate, p-**toluene sulfonate**, perchlorate and **alkyl sulfonate** C.sub.1 -C.sub.4.

9. A method according to claim 1 wherein the undesirable **plant** species is wild oats and the compound has the structure wherein R.sub.1 is methyl; R.sub.2 is alkyl C.sub.1 -C.sub.4 ;. . .

AN 75:64020 USPATFULL|

TI Novel herbicidal compositions|

IN Walworth, Bryant Leonidas, Pennington, NJ, United States

Klingsberg, Erwin, Mountain Side, NJ, United States

PA American Cyanamid Company, Stamford, CT, United States (U.S. corporation)

PI US 3922161 19751125

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AI US 1974-458367 19740405 (5)

RLI Division of Ser. No. US 1972-307672, filed on 17 Nov 1972, now Defensive

Publication No. which is a continuation-in-part of Ser. No. US 1972-271424, filed on 13 Jul 1972, now abandoned which is a continuation-in-part of Ser. No. US 1971-209448, filed on 17 Dec 1971, now abandoned

DT Utility|

EXNAM Primary Examiner: Gotts, Lewis; Assistant Examiner: Mills, Catherine L.|

LREP Raymond, Robert P.|

CLMN Number of Claims: 18|

ECL Exemplary Claim: 1|

DRWN No Drawings



L8 ANSWER 3 OF 3 USPATFULL

PI US 3882142 19750506

<--

SUMM More particularly, the herbicidal methods of the present invention relate to the control of undesirable **plant** species by applying to their foliage a herbicidally effective amount of a compound having the following formula: ##SPC1##

SUMM . . . . sulfate, hydroxide; hydrogen sulfate; methyl sulfate; benzene sulfonate; C.sub.1 -C.sub.4 alkoxy benzene sulfonate; C.sub.1 -C.sub.3 alkyl benzene sulfonate, preferably a **toluene**

**sulfonate**, such as, **p-toluene sulfonate**;

nitrate; phosphate; carbonate; hydrogen carbonate; alkane sulfonate C.sub.1 -C.sub.4 ; perchlorate; Br.sub.3 .sup.- and I.sub.3 .sup.-.

SUMM The **plants** which can be effectively controlled by application of one or more of the formula (I) pyrazolium salts include both broad leaf **plants** and annual grasses (monocotyledonous and dicotyledonous **plants**).

SUMM . . . . is 1 and X is selected from the group consisting of chloride, bromide, iodide, acetate, hydroxide, hydrogen sulfate, methyl sulfate, **p-toluene sulfonate**, perchlorate and **alkyl sulfonate** C.sub.1 -C.sub.4.

SUMM . . . . has one or two leaves. If spraying is delayed, such herbicides become ineffective. Others are only optimally employed with adult **plants** after tillering has occurred. In such cases the pest has already deprived the crop of nutrients, water and sunlight. Others, . . .

SUMM . . . . as being highly selective on barley, combined with herbicidal effectiveness throughout the early and middle life of the wild oat **plant**, together with their favorable dermal toxicity which is greater than 5,000 mg./kg. in rabbits for 1,2-dimethyl-3,5-diphenylpyrazolium methyl sulfate, low eye. . . .

SUMM . . . . alkyl acetates, alkyl sulfates, alkyl nitrates, alkyl phosphates, alkyl carbonates, alkyl perchlorates, alkyl hydrogen sulfates, alkyl methyl sulfates and alkyl **toluene sulfonates**; wherein, said alkyl groups are in the range of from C.sub.1 -C.sub.4 to provide the appropriate alkyl substituent in the.

SUMM In applying the formula (I) pyrazolium salts to the foliage of the undesirable **plant** species, the salts are preferably formulated as post-emergence herbicidal compositions by admixing a herbicidal adjuvant with a herbicidally effective amount. . . .

SUMM . . . . 30 percent of a water-miscible solvent, such as water itself

or

another polar water-miscible solvent, such as 2-methoxy ethanol, methanol, **propylene glycol**, **diethylene**

**glycol**, **diethylene glycol** monoethyl ether,

formamide, and methylformamide. Application of the material is made by adding a predetermined quantity of the water-miscible concentrate. .

SUMM . . . . tank at the rate of 0.1 to 5 percent by volume to provide good wetting of the spray solution on **plant** foliage.

SUMM These compositions are effective for the postemergence control of undesirable **plants** when applied at a rate sufficient to provide 0.25-20 lbs./acre of active ingredient (i.e. cation.

Application

at rates of from. . . .

SUMM . . . . well known in the chemical literature from readily available starting materials, such as the appropriately substituted acetophenone and appropriately substituted **benzoic acid** compounds or esters thereof.

SUMM Suitable **benzoic acid** derivatives useful in the preparation of the halo alkyl dibenzoyl methanes include, for example, those having the following substituents: p-trichloromethyl; . . .

DETD 68.4 Grams (0.335 mole) of the methyl ester of m-trifluoromethyl **benzoic acid** are combined with 36.0 grams (0.3 mole) of acetophenone in 200 ml. of dimethylsulfoxide. 8.04 Grams (0.335 mole) of sodium. . . .

DETD Preparation of 1,2-Dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** ##SPC7##

DETD . . . the solution thus prepared dried by azeotropic distillation. The solution is cooled to 70.degree.C. and 318 grams (1.71 moles) of methyl-p-**toluene sulfonate** is added. The mixture is then refluxed for 1 hour and cooled causing the product to crystallize. When the mixture. . . .

DETD . . . the general procedures of Examples 28, 29 or 30, substituting the appropriately substituted 1-alkyl-3,5-substituted diphenylpyrazole for 1-methyl-3,5-diphenylpyrazole and the appropriate alkyl-p-**toluene sulfonate**, alkyl halide or alkyl sulfate for the methyl-p-**toluene sulfonate**, methyl iodide or dimethyl sulfate, yields the corresponding 1,2-dialkyl substituted 3,5-diphenylpyrazolium salt. The reaction is graphically illustrated below: ##SPC8##

DETD . . . bromide solution of 1 N concentration until Br.sup.- ion is detected in the eluent. Then an aqueous solution of 1,2-dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** is passed down the column at a slow rate. The eluent is concentrated in vacuo, leaving the desired product as. . . .

DETD . . . procedure of Example 56 above, substituting the appropriate sodium salt for the sodium bromide used therein and the appropriate pyrazolium p-**toluene sulfonate** for that used therein yields the compounds having the following formula and substituents set forth in the table below. ##SPC10##

DETD To a solution of 1,2-dimethyl-3,5-diphenylpyrazolium p-**toluene sulfonate** (10.0 g.) in 500 ml. of water is added a 20 percent aqueous solution of perchloric acid with vigorous stirring.. . .

DETD Following the general procedure of Example 63, substituting the appropriate pyrazolium p-**toluene sulfonate** for that used therein results in the formation of the perchlorates set forth in the table below. ##SPC11##

DETD . . . of the compounds of the present invention is demonstrated by the following tests, wherein a variety of monocotyledonous and dicotyledonous **plants** are treated with test compounds dispersed in aqueous acetone mixtures. In the tests, seedling **plants** are grown in jiffy flats for about two weeks. The test compounds are dispersed in 50/50 acetone/water mixtures containing 0.5. . . to provide the equivalent of about 0.5 lb. to 9 lbs. per acre of active compound when applied to the **plants** through a spray nozzle operating at 40 psi. for a predetermined time. After spraying, the **plants** are placed on greenhouse benches and are cared for in the usual manner, commensurate with conventional greenhouse practices. Two weeks after treatment, the seedling **plants** are examined and rated according to the rating system provided below. The data obtained are reported in Table VI where. . . .

DETD . . . a 5 on the rating

scale.

.sup.1 Based on visual determination of stand, size, vigor, chlorosis, growth malformation and over-all **plant** appearance.

DETD

**Plant Abbreviation:**

LA -	Lambsquarters (Chenopodium album)
MU -	Mustard (Brassica kaber)
PI -	Pigweed (Amaranthus retroflexus)
BA -	Barnyard grass

. . . .

DETD . . . quantity to provide the equivalent of 0.5 lb. and 1.0 lb. per acre of test compound when applied to the **plants** through a spray nozzle operating at 40 psi. for a predetermined time.

#### Applications

are made to the growing **plants** when the **plants** reach the one-, two-, three-, or four-leaf stage. Three weeks after treatment, the foliage of the treated and non-treated control **plants** are cut, gathered, and weighed. The results obtained, which are set forth in

Table VII below, are expressed as percent inhibition of fresh weight of treated **plant** foliage as compared with the untreated control treatment. ##SPC15##

DETD . . . in North Dakota, United States of America, with a past history of heavy infestation of wild oats (*Avena fatua*), were **plants** with hard red spring wheat and spring barley. The plots were 8 feet.times.24 feet and sprayed at the two- or four-leaf stages of the wild oats, in sufficient amount to provide 1 or 2 lbs. per acre of 1,2-dimethyl-3,5-diphenylpyrazolium **p-toluene sulfonate**. Seven weeks after planting (or 3 and 5 weeks after treatment), the plots were examined and rated according to the. . .

#### DETD

Ingredient	%
1,2-Dimethyl-3,5-diphenylpyrazolium <b>p-toluene sulfonate</b>	23.6
<b>ethylene glycol</b> mono-methyl ether	76.4
Total	100.0

AN 75:23851 USPATFULL  
TI 1,2-Dialkyl-3,5-diphenyl pyrazolium salts  
IN Walworth, Bryant Leonidas, Pennington, NJ, United States  
Klingsberg, Erwin, Mountain Side, NJ, United States  
PA American Cyanamid Company, Stamford, CT, United States (U.S. corporation)  
PI US 3882142 19750506 <--  
AI US 1972-307672 19721117 (5)  
RLI Continuation-in-part of Ser. No. US 1972-271424, filed on 13 Jul 1972, now abandoned which is a continuation-in-part of Ser. No. US 1971-209448, filed on 17 Dec 1971, now abandoned  
DT Utility  
EXNAM Primary Examiner: Trousof, Natalie  
LREP Raymond, Robert P.  
CLMN Number of Claims: 7  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 834  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d 1-3 bib

L8 ANSWER 1 OF 3 USPATFULL  
AN 81:29106 USPATFULL  
TI N-(Phenylcycloalkyl)acetamide derivatives, and their production and use  
IN Kirino, Osamu, Hyogo, Japan  
Hashimoto, Shunichi, Sonehigashi, Japan  
Matsumoto, Hiroshi, Hyogo, Japan  
Oshio, Hiromichi, Osaka, Japan  
PA Sumitomo Chemical Company, Limited, Osaka, Japan (non-U.S. corporation)  
PI US 4270002 19810526 <--  
AI US 1979-87642 19791023 (6)  
PRAI JP 1978-138510 19781109  
DT Utility

EXNAM Primary Examiner: Daus, Donald G.; Assistant Examiner: Eakin, M. C.  
LREP Birch, Stewart, Kolasch & Birch  
CLMN Number of Claims: 7  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 638  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 3 USPATFULL  
AN 75:64020 USPATFULL  
TI Novel herbicidal compositions  
IN Walworth, Bryant Leonidas, Pennington, NJ, United States  
Klingsberg, Erwin, Mountain Side, NJ, United States  
PA American Cyanamid Company, Stamford, CT, United States (U.S.  
corporation)  
PI US 3922161 19751125 <--  
AI US 1974-458367 19740405 (5)  
RLI Division of Ser. No. US 1972-307672, filed on 17 Nov 1972, now  
Defensive  
Publication No. which is a continuation-in-part of Ser. No. US  
1972-271424, filed on 13 Jul 1972, now abandoned which is a  
continuation-in-part of Ser. No. US 1971-209448, filed on 17 Dec 1971,  
now abandoned  
DT Utility  
EXNAM Primary Examiner: Gotts, Lewis; Assistant Examiner: Mills, Catherine L.  
LREP Raymond, Robert P.  
CLMN Number of Claims: 18  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 865  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 3 USPATFULL  
AN 75:23851 USPATFULL  
TI 1,2-Dialkyl-3,5-diphenyl pyrazolium salts  
IN Walworth, Bryant Leonidas, Pennington, NJ, United States  
Klingsberg, Erwin, Mountain Side, NJ, United States  
PA American Cyanamid Company, Stamford, CT, United States (U.S.  
corporation)  
PI US 3882142 19750506 <--  
AI US 1972-307672 19721117 (5)  
RLI Continuation-in-part of Ser. No. US 1972-271424, filed on 13 Jul 1972,  
now abandoned which is a continuation-in-part of Ser. No. US  
1971-209448, filed on 17 Dec 1971, now abandoned  
DT Utility  
EXNAM Primary Examiner: Trousof, Natalie  
LREP Raymond, Robert P.  
CLMN Number of Claims: 7  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 834  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d hist

(FILE 'HOME' ENTERED AT 11:33:19 ON 28 JUN 2001)

FILE 'EMBASE, MEDLINE, BIOSIS, CAPLUS, USPATFULL' ENTERED AT 11:33:35 ON  
28 JUN 2001

L1 124053 S METHANOIC ACID OR ETHANOIC ACID OR PROPANOIC ACID OR  
HYDROXYE  
L2 9844 S ALKYL SULFONATE OR ALKYLARYLSULFONATE  
L3 5534 S CUMENE SULFONATE OR TOLUENE SULFONATE  
L4 319055 S ETHYLENE GLYCOL OR PROPYLENE GLYCOL OR BUTYLENE GLYCOL OR  
DIE

L5	59 S L1 AND L2 AND L3 AND L4
L6	36 S L5 AND PY<1998
L7	36 DUP REM L6 (0 DUPLICATES REMOVED)
L8	3 S L6 AND PLANT

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 87-69-4 REGISTRY

CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Butanedioic acid, 2,3-dihydroxy- [R-(R\*,R\*)]-

CN Tartaric acid, L-(+)- (8CI)

OTHER NAMES:

CN (+)-(R,R)-Tartaric acid

CN (+)-L-Tartaric acid

CN (+)-Tartaric acid

CN (2R,3R)-(+)-Tartaric acid

CN (2R,3R)-Tartaric acid

CN (R,R)-(+)-Tartaric acid

CN (R,R)-Tartaric acid

CN 1,2-Dihydroxyethane-1,2-dicarboxylic acid

CN 2,3-Dihydroxybutanedioic acid

CN 2R,3R-Tartaric acid

CN d-.alpha.,.beta.-Dihydroxysuccinic acid

CN d-Tartaric acid

CN Dextrotartaric acid

CN Dihydroxysuccinic acid

CN E 334

CN L-(+)-Tartaric acid

CN L-Tartaric acid

CN Natural tartaric acid

CN **Tartaric acid**

CN Threarcic acid

FS STEREOSEARCH

DR 8014-54-8, 8059-77-6, 1336-18-1

MF C4 H6 O6

CI COM

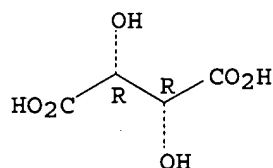
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM\*, DIOGENES, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, IFICDB, IFIPAT, IFIUDB, IPA, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

13944 REFERENCES IN FILE CA (1957 TO DATE)

1301 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

13985 REFERENCES IN FILE CAPLUS (1957 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s lactic acid

2291 LACTIC

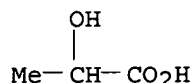
5982871 ACID

8296 ACIDS  
5989015 ACID  
(ACID OR ACIDS)  
L3 2090 LACTIC ACID  
(LACTIC(W)ACID)

=> s lactic acid/cn  
L4 1 LACTIC ACID/CN

=> d

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS  
RN 50-21-5 REGISTRY  
CN Propanoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Lactic acid (7CI, 8CI)  
OTHER NAMES:  
CN (.+-.)-Lactic acid  
CN .alpha.-Hydroxypropanoic acid  
CN .alpha.-Hydroxypropionic acid  
CN 2-Hydroxy-2-methylacetic acid  
CN 2-Hydroxypropanoic acid  
CN 2-Hydroxypropionic acid  
CN Biolac  
CN Chem-Cast  
CN DL-Lactic acid  
CN dl-Lactic acid  
CN E 270  
CN Milk acid  
CN Purac FCC 88  
CN Tonsilloosan  
FS 3D CONCORD  
DR 152-36-3, 598-82-3  
MF C3 H6 O3  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,  
CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DDFU, DETHERM\*,  
DIOGENES, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,  
ENCOMPPAT2, GMELIN\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*,  
MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO,  
SYNTHLINE, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL, VETU, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

42232 REFERENCES IN FILE CA (1957 TO DATE)  
1410 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
42308 REFERENCES IN FILE CAPLUS (1957 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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